

**FIG. 1**

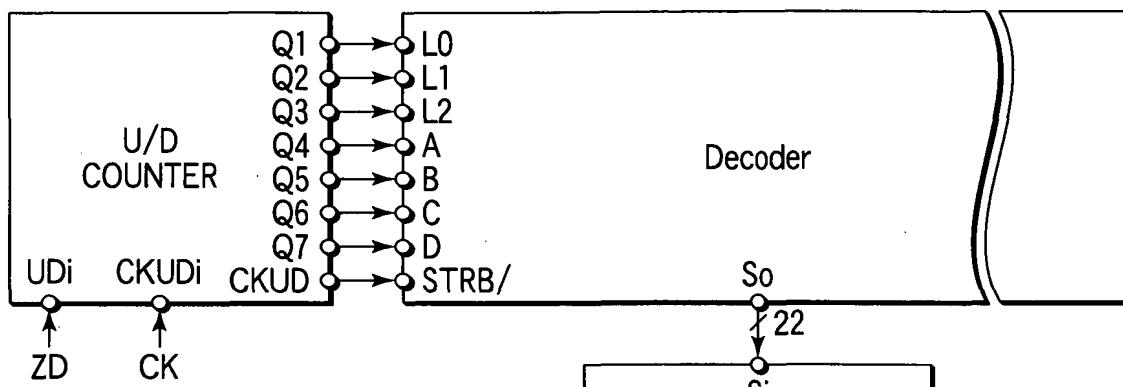


FIG. 2A

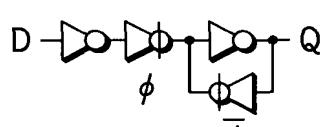


FIG. 2C

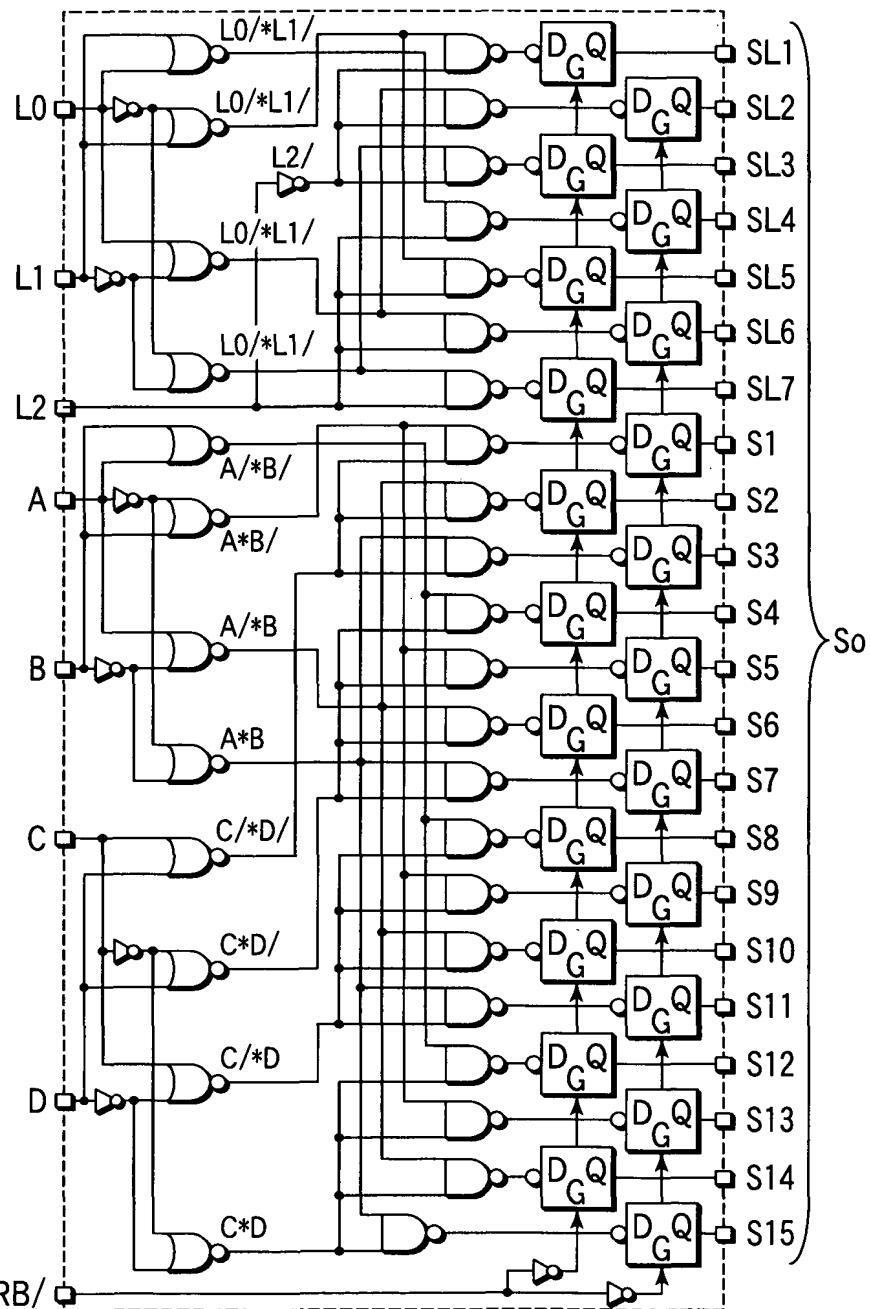


FIG. 2B

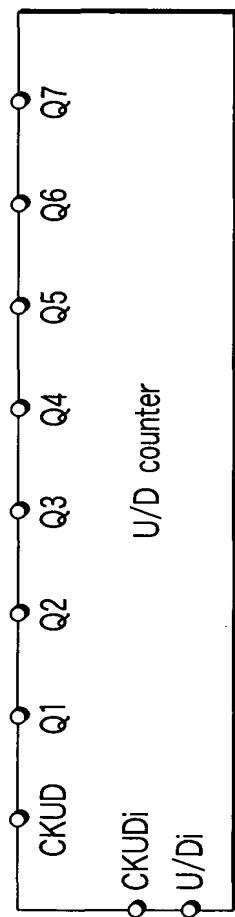


FIG. 3A

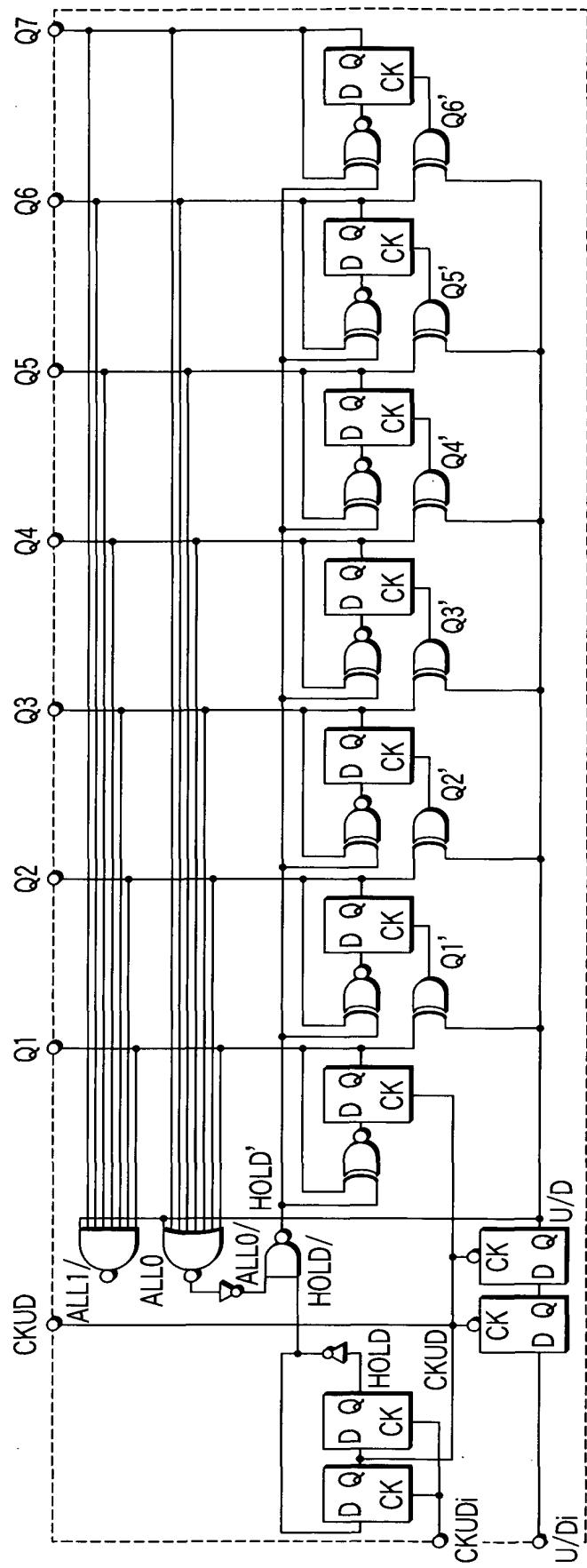


FIG. 3B

Counter	D	C	B	A	L2	L1	L0	ON-SW	Resistance value
0	0	0	0	0	0	0	0		15r
1	0	0	0	0	0	0	1	SL1	(14+7/8)r
2	0	0	0	0	0	1	0	SL2	(14+6/8)r
3	0	0	0	0	0	1	1	SL3	(14+5/8)r
4	0	0	0	0	1	0	0	SL4	(14+4/8)r
5	0	0	0	0	1	0	1	SL5	(14+3/8)r
6	0	0	0	0	1	1	0	SL6	(14+2/8)r
7	0	0	0	0	1	1	1	SL7	(14+1/8)r
8	0	0	0	1	0	0	0	S1	14r
9	0	0	0	1	0	0	1	SL1	(13+7/8)r
10	0	0	0	1	0	1	0	SL2	(13+6/8)r
11	0	0	0	1	0	1	1	SL3	(13+5/8)r
12	0	0	0	1	1	0	0	SL4	(13+4/8)r
13	0	0	0	1	1	0	1	SL5	(13+3/8)r
14	0	0	0	1	1	1	0	SL6	(13+2/8)r
15	0	0	0	1	1	1	1	SL7	(13+1/8)r
16	0	0	1	0	0	0	0	S2	13r
17	0	0	1	0	0	0	1	SL1	(12+7/8)r
18	0	0	1	0	0	1	0	SL2	(12+6/8)r
19	0	0	1	0	0	1	1	SL3	(12+5/8)r
20	0	0	1	0	1	0	0	SL4	(12+4/8)r
21	0	0	1	0	1	0	1	SL5	(12+3/8)r
22	0	0	1	0	1	1	0	SL6	(12+2/8)r
23	0	0	1	0	1	1	1	SL7	(12+1/8)r
24	0	0	1	1	0	0	0	S3	12r
25	0	0	1	1	0	0	1	SL1	(11+7/8)r
26	0	0	1	1	0	1	0	SL2	(11+6/8)r
27	0	0	1	1	0	1	1	SL3	(11+5/8)r
28	0	0	1	1	1	0	0	SL4	(11+4/8)r
29	0	0	1	1	1	0	1	SL5	(11+3/8)r
30	0	0	1	1	1	1	0	SL6	(11+2/8)r
31	0	0	1	1	1	1	1	SL7	(11+1/8)r
32	0	1	0	0	0	0	0	S4	11r
33	0	1	0	0	0	0	1	SL1	(10+7/8)r
34	0	1	0	0	0	1	0	SL2	(10+6/8)r
35	0	1	0	0	0	1	1	SL3	(10+5/8)r
36	0	1	0	0	1	0	0	SL4	(10+4/8)r
37	0	1	0	0	1	0	1	SL5	(10+3/8)r
38	0	1	0	0	1	1	0	SL6	(10+2/8)r
39	0	1	0	0	1	1	1	SL7	(10+1/8)r
40	0	1	0	1	0	0	0	S5	10r
41	0	1	0	1	0	0	1	SL1	(9+7/8)r
42	0	1	0	1	0	1	0	SL2	(9+6/8)r
43	0	1	0	1	0	1	1	S5	(9+5/8)r

FIG. 4A

Counter	D	C	B	A	L2	L1	L0	ON-SW	Resistance value
44	0	1	0	1	1	0	0	S5 SL4	(9+4/8)r
45	0	1	0	1	1	0	1	S5 SL5	(9+3/8)r
46	0	1	0	1	1	1	0	S5 SL6	(9+2/8)r
47	0	1	0	1	1	1	1	S5 SL7	(9+1/8)r
48	0	1	1	0	0	0	0	S6	9r
49	0	1	1	0	0	0	1	S6 SL1	(8+7/8)r
50	0	1	1	0	0	1	0	S6 SL2	(8+6/8)r
51	0	1	1	0	0	1	1	S6 SL3	(8+5/8)r
52	0	1	1	0	1	0	0	S6 SL4	(8+4/8)r
53	0	1	1	0	1	0	1	S6 SL5	(8+3/8)r
54	0	1	1	0	1	1	0	S6 SL6	(8+2/8)r
55	0	1	1	0	1	1	1	S6 SL7	(8+1/8)r
56	0	1	1	1	0	0	0	S7	8r
57	0	1	1	1	0	0	1	S7 SL1	(7+7/8)r
58	0	1	1	1	0	1	0	S7 SL2	(7+6/8)r
59	0	1	1	1	0	1	1	S7 SL3	(7+5/8)r
60	0	1	1	1	1	0	0	S7 SL4	(7+4/8)r
61	0	1	1	1	1	0	1	S7 SL5	(7+3/8)r
62	0	1	1	1	1	1	0	S7 SL6	(7+2/8)r
63	0	1	1	1	1	1	1	S7 SL7	(7+1/8)r
64	1	0	0	0	0	0	0	S8	7r
65	1	0	0	0	0	0	1	S8 SL1	(6+7/8)r
66	1	0	0	0	0	1	0	S8 SL2	(6+6/8)r
67	1	0	0	0	0	1	1	S8 SL3	(6+5/8)r
68	1	0	0	0	1	0	0	S8 SL4	(6+4/8)r
69	1	0	0	0	1	0	1	S8 SL5	(6+3/8)r
70	1	0	0	0	1	1	0	S8 SL6	(6+2/8)r
71	1	0	0	0	1	1	1	S8 SL7	(6+1/8)r
72	1	0	0	1	0	0	0	S9	6r
73	1	0	0	1	0	0	1	S9 SL1	(5+7/8)r
74	1	0	0	1	0	1	0	S9 SL2	(5+6/8)r
75	1	0	0	1	0	1	1	S9 SL3	(5+5/8)r
76	1	0	0	1	1	0	0	S9 SL4	(5+4/8)r
77	1	0	0	1	1	0	1	S9 SL5	(5+3/8)r
78	1	0	0	1	1	1	0	S9 SL6	(5+2/8)r
79	1	0	0	1	1	1	1	S9 SL7	(5+1/8)r
80	1	0	1	0	0	0	0	S10	5r
81	1	0	1	0	0	0	1	S10 SL1	(4+7/8)r
82	1	0	1	0	0	1	0	S10 SL2	(4+6/8)r
83	1	0	1	0	0	1	1	S10 SL3	(4+5/8)r
84	1	0	1	0	1	0	0	S10 SL4	(4+4/8)r
85	1	0	1	0	1	0	1	S10 SL5	(4+3/8)r
86	1	0	1	0	1	1	0	S10 SL6	(4+2/8)r

FIG. 4B

Counter	D	C	B	A	L2	L1	L0	ON-SW	Resistance value
87	1	0	1	0	1	1	1	S10	(4+1/8)r
88	1	0	1	1	0	0	0	S11	4r
89	1	0	1	1	0	0	1	S11	(3+7/8)r
90	1	0	1	1	0	1	0	S11	(3+6/8)r
91	1	0	1	1	0	1	1	S11	(3+5/8)r
92	1	0	1	1	1	0	0	S11	(3+4/8)r
93	1	0	1	1	1	0	1	S11	(3+3/8)r
94	1	0	1	1	1	1	0	S11	(3+2/8)r
95	1	0	1	1	1	1	1	S11	(3+1/8)r
96	1	1	0	0	0	0	0	S12	3r
97	1	1	0	0	0	0	1	S12	(2+7/8)r
98	1	1	0	0	0	1	0	S12	(2+6/8)r
99	1	1	0	0	0	1	1	S12	(2+5/8)r
100	1	1	0	0	1	0	0	S12	(2+4/8)r
101	1	1	0	0	1	0	1	S12	(2+3/8)r
102	1	1	0	0	1	1	0	S12	(2+2/8)r
103	1	1	0	0	1	1	1	S12	(2+1/8)r
104	1	1	0	1	0	0	0	S13	2r
105	1	1	0	1	0	0	1	S13	(1+7/8)r
106	1	1	0	1	0	1	0	S13	(1+6/8)r
107	1	1	0	1	0	1	1	S13	(1+5/8)r
108	1	1	0	1	1	0	0	S13	(1+4/8)r
109	1	1	0	1	1	0	1	S13	(1+3/8)r
110	1	1	0	1	1	1	0	S13	(1+2/8)r
111	1	1	0	1	1	1	1	S13	(1+1/8)r
112	1	1	1	0	0	0	0	S14	r
113	1	1	1	0	0	0	1	S14	(7/8)r
114	1	1	1	0	0	1	0	S14	(6/8)r
115	1	1	1	0	0	1	1	S14	(5/8)r
116	1	1	1	0	1	0	0	S14	(4/8)r
117	1	1	1	0	1	0	1	S14	(3/8)r
118	1	1	1	0	1	1	0	S14	(2/8)r
119	1	1	1	0	1	1	1	S14	(1/8)r
120	1	1	1	1	0	0	0	S15	0
121	1	1	1	1	0	0	1	S15	SL1 0
122	1	1	1	1	0	1	0	S15	SL2 0
123	1	1	1	1	0	1	1	S15	SL3 0
124	1	1	1	1	1	0	0	S15	SL4 0
125	1	1	1	1	1	0	1	S15	SL5 0
126	1	1	1	1	1	1	0	S15	SL6 0
127	1	1	1	1	1	1	1	S15	SL7 0

F I G. 4C

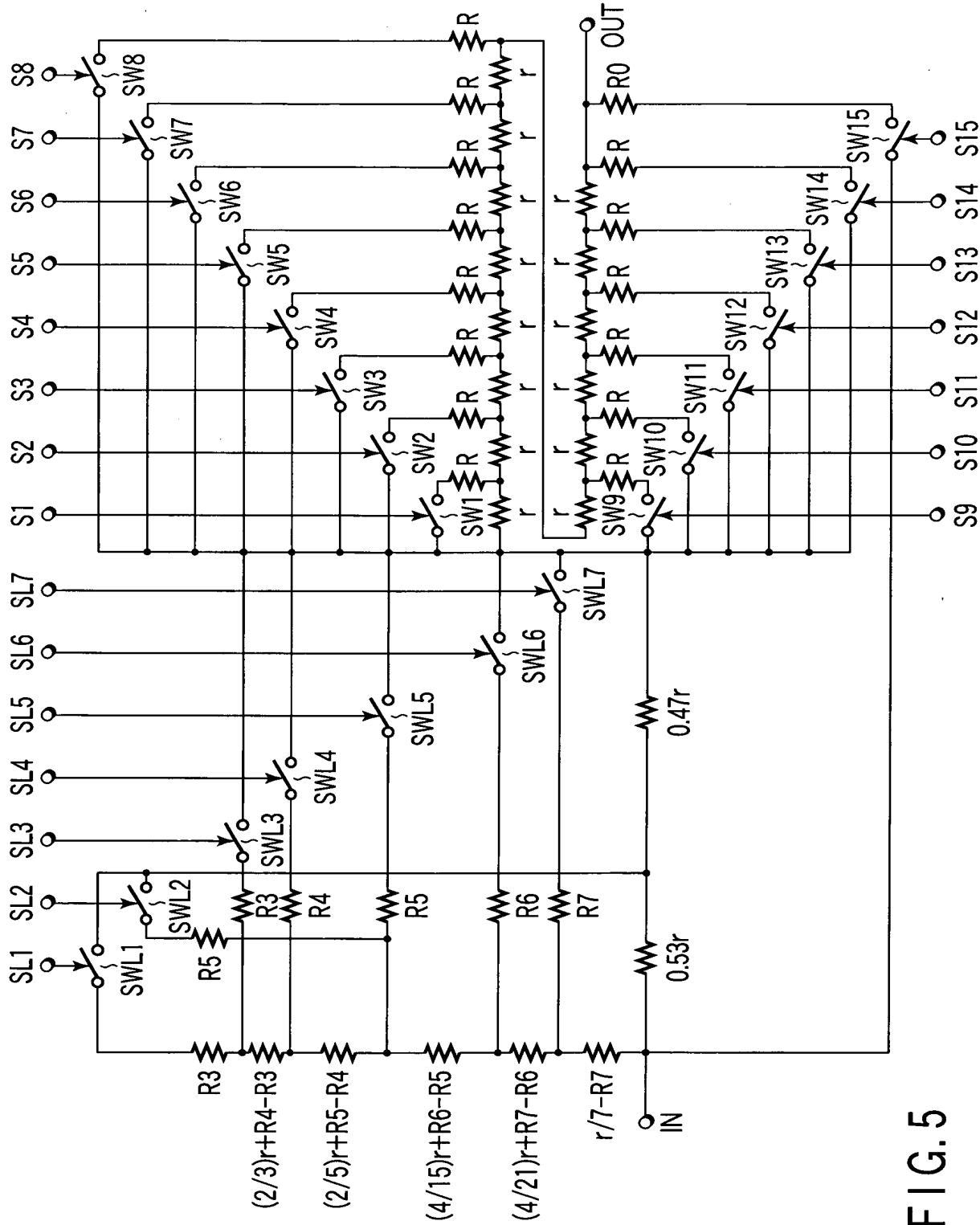


FIG. 5

Counter	D	C	B	A	L2	L1	L0	ON-SW	Resistance value
0	0	0	0	0	0	0	0		15r
1	0	0	0	0	0	0	1	SL1	(14+7/8)r
2	0	0	0	0	0	1	0	SL2	(14+6/8)r
3	0	0	0	0	0	1	1	SL3	(14+5/8)r
4	0	0	0	0	1	0	0	SL4	(14+4/8)r
5	0	0	0	0	1	0	1	SL5	(14+3/8)r
6	0	0	0	0	1	1	0	SL6	(14+2/8)r
7	0	0	0	0	1	1	1	SL7	(14+1/8)r
8	0	0	0	1	0	0	0	S1	14r+R
9	0	0	0	1	0	0	1	S1	SL1 (13+7/8)r+R
10	0	0	0	1	0	1	0	S1	SL2 (13+6/8)r+R
11	0	0	0	1	0	1	1	S1	SL3 (13+5/8)r+R
12	0	0	0	1	1	0	0	S1	SL4 (13+4/8)r+R
13	0	0	0	1	1	0	1	S1	SL5 (13+3/8)r+R
14	0	0	0	1	1	1	0	S1	SL6 (13+2/8)r+R
15	0	0	0	1	1	1	1	S1	SL7 (13+1/8)r+R
16	0	0	1	0	0	0	0	S2	13r+R
17	0	0	1	0	0	0	1	S2	SL1 (12+7/8)r+R
18	0	0	1	0	0	1	0	S2	SL2 (12+6/8)r+R
19	0	0	1	0	0	1	1	S2	SL3 (12+5/8)r+R
20	0	0	1	0	1	0	0	S2	SL4 (12+4/8)r+R
21	0	0	1	0	1	0	1	S2	SL5 (12+3/8)r+R
22	0	0	1	0	1	1	0	S2	SL6 (12+2/8)r+R
23	0	0	1	0	1	1	1	S2	SL7 (12+1/8)r+R
24	0	0	1	1	0	0	0	S3	12r+R
25	0	0	1	1	0	0	1	S3	SL1 (11+7/8)r+R
26	0	0	1	1	0	1	0	S3	SL2 (11+6/8)r+R
27	0	0	1	1	0	1	1	S3	SL3 (11+5/8)r+R
28	0	0	1	1	1	0	0	S3	SL4 (11+4/8)r+R
29	0	0	1	1	1	0	1	S3	SL5 (11+3/8)r+R
30	0	0	1	1	1	1	0	S3	SL6 (11+2/8)r+R
31	0	0	1	1	1	1	1	S3	SL7 (11+1/8)r+R
32	0	1	0	0	0	0	0	S4	11r+R
33	0	1	0	0	0	0	1	S4	SL1 (10+7/8)r+R
34	0	1	0	0	0	1	0	S4	SL2 (10+6/8)r+R
35	0	1	0	0	0	1	1	S4	SL3 (10+5/8)r+R
36	0	1	0	0	1	0	0	S4	SL4 (10+4/8)r+R
37	0	1	0	0	1	0	1	S4	SL5 (10+3/8)r+R
38	0	1	0	0	1	1	0	S4	SL6 (10+2/8)r+R
39	0	1	0	0	1	1	1	S4	SL7 (10+1/8)r+R
40	0	1	0	1	0	0	0	S5	10r+R
41	0	1	0	1	0	0	1	S5	SL1 (9+7/8)r+R
42	0	1	0	1	0	1	0	S5	SL2 (9+6/8)r+R
43	0	1	0	1	0	1	1	S5	SL3 (9+5/8)r+R

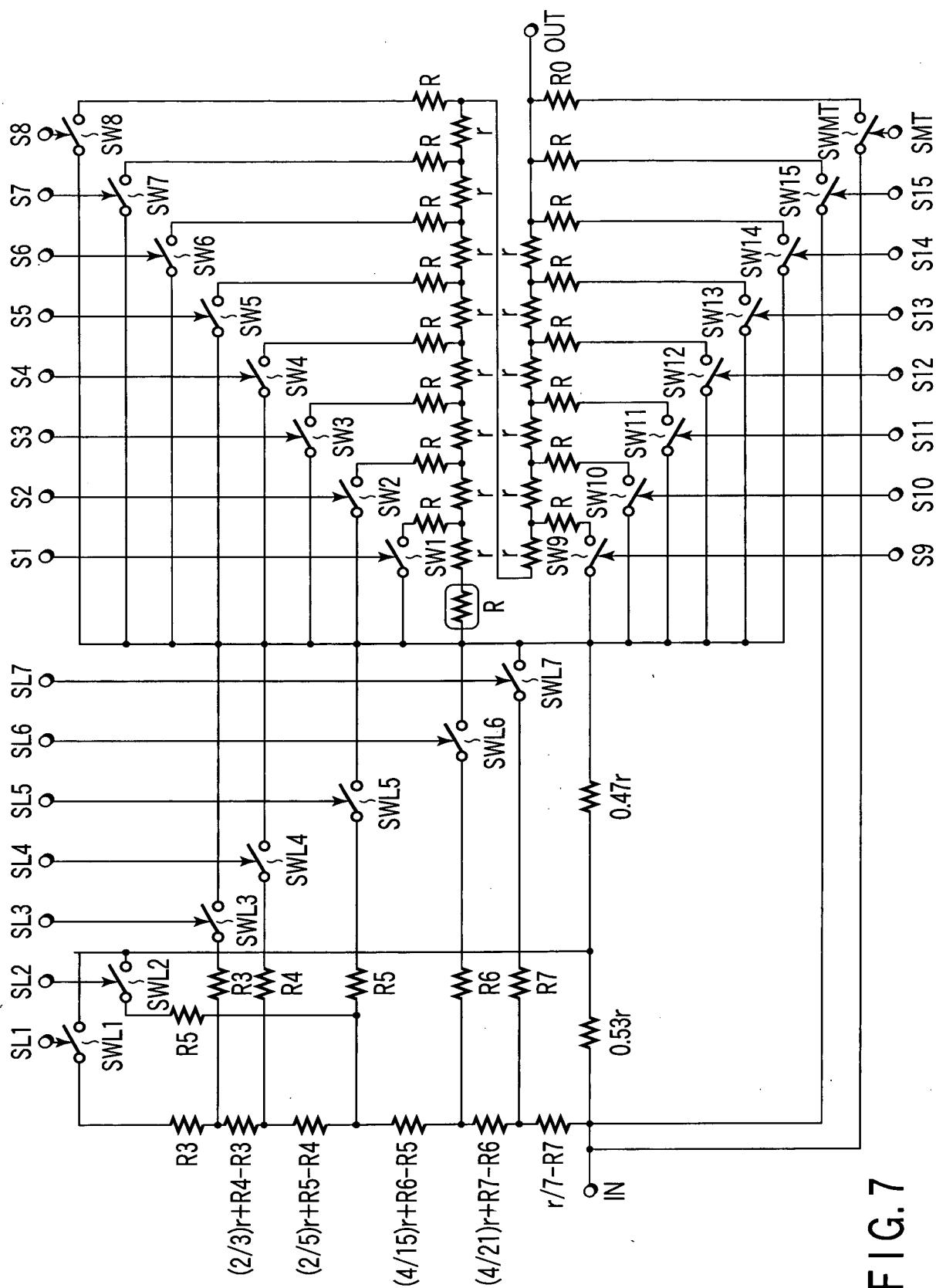
FIG. 6A

Counter	D	C	B	A	L2	L1	L0	ON-SW	Resistance value
44	0	1	0	1	1	0	0	S5	$(9+4/8)r+R$
45	0	1	0	1	1	0	1	S5	$(9+3/8)r+R$
46	0	1	0	1	1	1	0	S5	$(9+2/8)r+R$
47	0	1	0	1	1	1	1	S5	$(9+1/8)r+R$
48	0	1	1	0	0	0	0	S6	$9r+R$
49	0	1	1	0	0	0	1	S6	$(8+7/8)r+R$
50	0	1	1	0	0	1	0	S6	$(8+6/8)r+R$
51	0	1	1	0	0	1	1	S6	$(8+5/8)r+R$
52	0	1	1	0	1	0	0	S6	$(8+4/8)r+R$
53	0	1	1	0	1	0	1	S6	$(8+3/8)r+R$
54	0	1	1	0	1	1	0	S6	$(8+2/8)r+R$
55	0	1	1	0	1	1	1	S6	$(8+1/8)r+R$
56	0	1	1	1	0	0	0	S7	$8r+R$
57	0	1	1	1	0	0	1	S7	$(7+7/8)r+R$
58	0	1	1	1	0	1	0	S7	$(7+6/8)r+R$
59	0	1	1	1	0	1	1	S7	$(7+5/8)r+R$
60	0	1	1	1	1	0	0	S7	$(7+4/8)r+R$
61	0	1	1	1	1	0	1	S7	$(7+3/8)r+R$
62	0	1	1	1	1	1	0	S7	$(7+2/8)r+R$
63	0	1	1	1	1	1	1	S7	$(7+1/8)r+R$
64	1	0	0	0	0	0	0	S8	$7r+R$
65	1	0	0	0	0	0	1	S8	$(6+7/8)r+R$
66	1	0	0	0	0	1	0	S8	$(6+6/8)r+R$
67	1	0	0	0	0	1	1	S8	$(6+5/8)r+R$
68	1	0	0	0	1	0	0	S8	$(6+4/8)r+R$
69	1	0	0	0	1	0	1	S8	$(6+3/8)r+R$
70	1	0	0	0	1	1	0	S8	$(6+2/8)r+R$
71	1	0	0	0	1	1	1	S8	$(6+1/8)r+R$
72	1	0	0	1	0	0	0	S9	$6r+R$
73	1	0	0	1	0	0	1	S9	$(5+7/8)r+R$
74	1	0	0	1	0	1	0	S9	$(5+6/8)r+R$
75	1	0	0	1	0	1	1	S9	$(5+5/8)r+R$
76	1	0	0	1	1	0	0	S9	$(5+4/8)r+R$
77	1	0	0	1	1	0	1	S9	$(5+3/8)r+R$
78	1	0	0	1	1	1	0	S9	$(5+2/8)r+R$
79	1	0	0	1	1	1	1	S9	$(5+1/8)r+R$
80	1	0	1	0	0	0	0	S10	$5r+R$
81	1	0	1	0	0	0	1	S10	$(4+7/8)r+R$
82	1	0	1	0	0	1	0	S10	$(4+6/8)r+R$
83	1	0	1	0	0	1	1	S10	$(4+5/8)r+R$
84	1	0	1	0	1	0	0	S10	$(4+4/8)r+R$
85	1	0	1	0	1	0	1	S10	$(4+3/8)r+R$
86	1	0	1	0	1	1	0	S10	$(4+2/8)r+R$

F I G. 6B

Counter	D	C	B	A	L2	L1	L0	ON-SW	Resistance value
87	1	0	1	0	1	1	1	S10	(4+1/8)r+R
88	1	0	1	1	0	0	0	S11	4r+R
89	1	0	1	1	0	0	1	S11	(3+7/8)r+R
90	1	0	1	1	0	1	0	S11	(3+6/8)r+R
91	1	0	1	1	0	1	1	S11	(3+5/8)r+R
92	1	0	1	1	1	0	0	S11	(3+4/8)r+R
93	1	0	1	1	1	0	1	S11	(3+3/8)r+R
94	1	0	1	1	1	1	0	S11	(3+2/8)r+R
95	1	0	1	1	1	1	1	S11	(3+1/8)r+R
96	1	1	0	0	0	0	0	S12	3r+R
97	1	1	0	0	0	0	1	S12	SL1 (2+7/8)r+R
98	1	1	0	0	0	1	0	S12	SL2 (2+6/8)r+R
99	1	1	0	0	0	1	1	S12	SL3 (2+5/8)r+R
100	1	1	0	0	1	0	0	S12	SL4 (2+4/8)r+R
101	1	1	0	0	1	0	1	S12	SL5 (2+3/8)r+R
102	1	1	0	0	1	1	0	S12	SL6 (2+2/8)r+R
103	1	1	0	0	1	1	1	S12	SL7 (2+1/8)r+R
104	1	1	0	1	0	0	0	S13	2r+R
105	1	1	0	1	0	0	1	S13	SL1 (1+7/8)r+R
106	1	1	0	1	0	1	0	S13	SL2 (1+6/8)r+R
107	1	1	0	1	0	1	1	S13	SL3 (1+5/8)r+R
108	1	1	0	1	1	0	0	S13	SL4 (1+4/8)r+R
109	1	1	0	1	1	0	1	S13	SL5 (1+3/8)r+R
110	1	1	0	1	1	1	0	S13	SL6 (1+2/8)r+R
111	1	1	0	1	1	1	1	S13	SL7 (1+1/8)r+R
112	1	1	1	0	0	0	0	S14	r+R
113	1	1	1	0	0	0	1	S14	SL1 (7/8)r+R
114	1	1	1	0	0	1	0	S14	SL2 (6/8)r+R
115	1	1	1	0	0	1	1	S14	SL3 (5/8)r+R
116	1	1	1	0	1	0	0	S14	SL4 (4/8)r+R
117	1	1	1	0	1	0	1	S14	SL5 (3/8)r+R
118	1	1	1	0	1	1	0	S14	SL6 (2/8)r+R
119	1	1	1	0	1	1	1	S14	SL7 (1/8)r+R
120	1	1	1	1	0	0	0	S15	R0
121	1	1	1	1	1	0	0	S15	SL1 R0
122	1	1	1	1	1	0	1	S15	SL2 R0
123	1	1	1	1	1	0	1	S15	SL3 R0
124	1	1	1	1	1	1	0	S15	SL4 R0
125	1	1	1	1	1	1	0	S15	SL5 R0
126	1	1	1	1	1	1	1	S15	SL6 R0
127	1	1	1	1	1	1	1	S15	SL7 R0

FIG. 6C



F I G. 7

Counter	D	C	B	A	L2	L1	L0	ON-SW	Resistance value	
0	0	0	0	0	0	0	0		15r+R	
1	0	0	0	0	0	0	1	SL1	(14+7/8)r+R	
2	0	0	0	0	0	1	0	SL2	(14+6/8)r+R	
3	0	0	0	0	0	1	1	SL3	(14+5/8)r+R	
4	0	0	0	0	1	0	0	SL4	(14+4/8)r+R	
5	0	0	0	0	1	0	1	SL5	(14+3/8)r+R	
6	0	0	0	0	1	1	0	SL6	(14+2/8)r+R	
7	0	0	0	0	1	1	1	SL7	(14+1/8)r+R	
8	0	0	0	1	0	0	0	S1	14r+R	
9	0	0	0	1	0	0	1	SL1	(13+7/8)r+R	
10	0	0	0	1	0	1	0	S1	SL2	(13+6/8)r+R
11	0	0	0	1	0	1	1	S1	SL3	(13+5/8)r+R
12	0	0	0	1	1	0	0	S1	SL4	(13+4/8)r+R
13	0	0	0	1	1	0	1	S1	SL5	(13+3/8)r+R
14	0	0	0	1	1	1	0	S1	SL6	(13+2/8)r+R
15	0	0	0	1	1	1	1	S1	SL7	(13+1/8)r+R
16	0	0	1	0	0	0	0	S2		13r+R
17	0	0	1	0	0	0	1	S2	SL1	(12+7/8)r+R
18	0	0	1	0	0	1	0	S2	SL2	(12+6/8)r+R
19	0	0	1	0	0	1	1	S2	SL3	(12+5/8)r+R
20	0	0	1	0	1	0	0	S2	SL4	(12+4/8)r+R
21	0	0	1	0	1	0	1	S2	SL5	(12+3/8)r+R
22	0	0	1	0	1	1	0	S2	SL6	(12+2/8)r+R
23	0	0	1	0	1	1	1	S2	SL7	(12+1/8)r+R
24	0	0	1	1	0	0	0	S3		12r+R
25	0	0	1	1	0	0	1	S3	SL1	(11+7/8)r+R
26	0	0	1	1	0	1	0	S3	SL2	(11+6/8)r+R
27	0	0	1	1	0	1	1	S3	SL3	(11+5/8)r+R
28	0	0	1	1	1	0	0	S3	SL4	(11+4/8)r+R
29	0	0	1	1	1	0	1	S3	SL5	(11+3/8)r+R
30	0	0	1	1	1	1	0	S3	SL6	(11+2/8)r+R
31	0	0	1	1	1	1	1	S3	SL7	(11+1/8)r+R
32	0	1	0	0	0	0	0	S4		11r+R
33	0	1	0	0	0	0	1	S4	SL1	(10+7/8)r+R
34	0	1	0	0	0	1	0	S4	SL2	(10+6/8)r+R
35	0	1	0	0	0	1	1	S4	SL3	(10+5/8)r+R
36	0	1	0	0	1	0	0	S4	SL4	(10+4/8)r+R
37	0	1	0	0	1	0	1	S4	SL5	(10+3/8)r+R
38	0	1	0	0	1	1	0	S4	SL6	(10+2/8)r+R
39	0	1	0	0	1	1	1	S4	SL7	(10+1/8)r+R
40	0	1	0	1	0	0	0	S5		10r+R
41	0	1	0	1	0	0	1	S5	SL1	(9+7/8)r+R
42	0	1	0	1	0	1	0	S5	SL2	(9+6/8)r+R
43	0	1	0	1	0	1	1	S5	SL3	(9+5/8)r+R

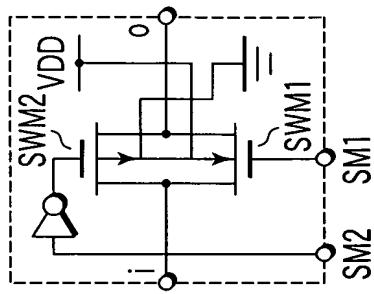
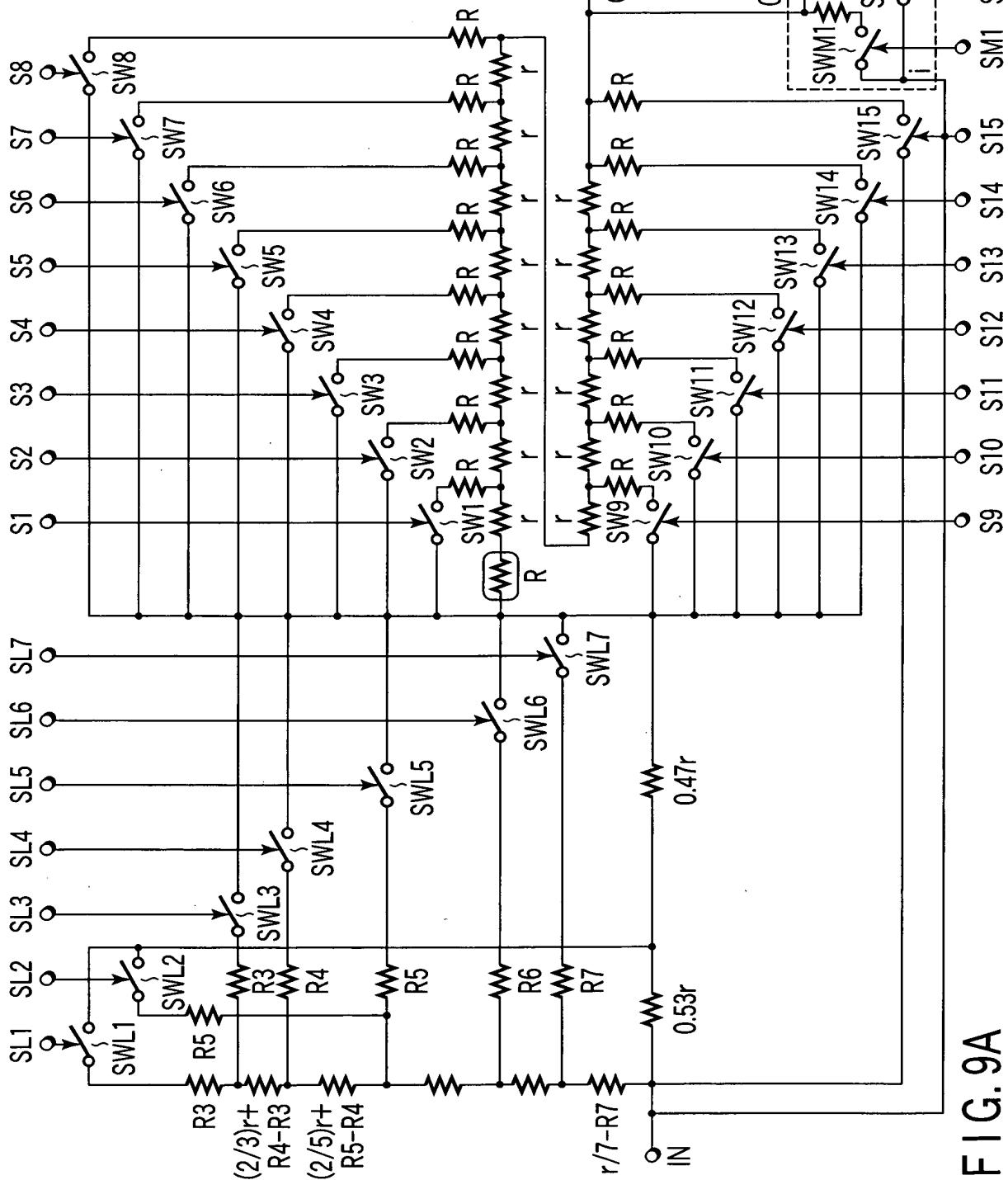
FIG. 8A

Counter	D	C	B	A	L2	L1	L0	ON-SW	Resistance value	
44	0	1	0	1	1	0	0	S5	SL4	(9+4/8)r+R
45	0	1	0	1	1	0	1	S5	SL5	(9+3/8)r+R
46	0	1	0	1	1	1	0	S5	SL6	(9+2/8)r+R
47	0	1	0	1	1	1	1	S5	SL7	(9+1/8)r+R
48	0	1	1	0	0	0	0	S6		9r+R
49	0	1	1	0	0	0	1	S6	SL1	(8+7/8)r+R
50	0	1	1	0	0	1	0	S6	SL2	(8+6/8)r+R
51	0	1	1	0	0	1	1	S6	SL3	(8+5/8)r+R
52	0	1	1	0	1	0	0	S6	SL4	(8+4/8)r+R
53	0	1	1	0	1	0	1	S6	SL5	(8+3/8)r+R
54	0	1	1	0	1	1	0	S6	SL6	(8+2/8)r+R
55	0	1	1	0	1	1	1	S6	SL7	(8+1/8)r+R
56	0	1	1	1	0	0	0	S7		8r+R
57	0	1	1	1	0	0	1	S7	SL1	(7+7/8)r+R
58	0	1	1	1	0	1	0	S7	SL2	(7+6/8)r+R
59	0	1	1	1	0	1	1	S7	SL3	(7+5/8)r+R
60	0	1	1	1	1	0	0	S7	SL4	(7+4/8)r+R
61	0	1	1	1	1	0	1	S7	SL5	(7+3/8)r+R
62	0	1	1	1	1	1	0	S7	SL6	(7+2/8)r+R
63	0	1	1	1	1	1	1	S7	SL7	(7+1/8)r+R
64	1	0	0	0	0	0	0	S8		7r+R
65	1	0	0	0	0	0	1	S8	SL1	(6+7/8)r+R
66	1	0	0	0	0	1	0	S8	SL2	(6+6/8)r+R
67	1	0	0	0	0	1	1	S8	SL3	(6+5/8)r+R
68	1	0	0	0	1	0	0	S8	SL4	(6+4/8)r+R
69	1	0	0	0	1	0	1	S8	SL5	(6+3/8)r+R
70	1	0	0	0	1	1	0	S8	SL6	(6+2/8)r+R
71	1	0	0	0	1	1	1	S8	SL7	(6+1/8)r+R
72	1	0	0	1	0	0	0	S9		6r+R
73	1	0	0	1	0	0	1	S9	SL1	(5+7/8)r+R
74	1	0	0	1	0	1	0	S9	SL2	(5+6/8)r+R
75	1	0	0	1	0	1	1	S9	SL3	(5+5/8)r+R
76	1	0	0	1	1	0	0	S9	SL4	(5+4/8)r+R
77	1	0	0	1	1	0	1	S9	SL5	(5+3/8)r+R
78	1	0	0	1	1	1	0	S9	SL6	(5+2/8)r+R
79	1	0	0	1	1	1	1	S9	SL7	(5+1/8)r+R
80	1	0	1	0	0	0	0	S10		5r+R
81	1	0	1	0	0	0	1	S10	SL1	(4+7/8)r+R
82	1	0	1	0	0	1	0	S10	SL2	(4+6/8)r+R
83	1	0	1	0	0	1	1	S10	SL3	(4+5/8)r+R
84	1	0	1	0	1	0	0	S10	SL4	(4+4/8)r+R
85	1	0	1	0	1	0	1	S10	SL5	(4+3/8)r+R
86	1	0	1	0	1	1	0	S10	SL6	(4+2/8)r+R

FIG. 8B

Counter	D	C	B	A	L2	L1	L0	ON-SW	Resistance value
87	1	0	1	0	1	1	1	S10 SL7	(4+1/8)r+R
88	1	0	1	1	0	0	0	S11	4r+R
89	1	0	1	1	0	0	1	S11 SL1	(3+7/8)r+R
90	1	0	1	1	0	1	0	S11 SL2	(3+6/8)r+R
91	1	0	1	1	0	1	1	S11 SL3	(3+5/8)r+R
92	1	0	1	1	1	0	0	S11 SL4	(3+4/8)r+R
93	1	0	1	1	1	0	1	S11 SL5	(3+3/8)r+R
94	1	0	1	1	1	1	0	S11 SL6	(3+2/8)r+R
95	1	0	1	1	1	1	1	S11 SL7	(3+1/8)r+R
96	1	1	0	0	0	0	0	S12	3r+R
97	1	1	0	0	0	0	1	S12 SL1	(2+7/8)r+R
98	1	1	0	0	0	1	0	S12 SL2	(2+6/8)r+R
99	1	1	0	0	0	1	1	S12 SL3	(2+5/8)r+R
100	1	1	0	0	1	0	0	S12 SL4	(2+4/8)r+R
101	1	1	0	0	1	0	1	S12 SL5	(2+3/8)r+R
102	1	1	0	0	1	1	0	S12 SL6	(2+2/8)r+R
103	1	1	0	0	1	1	1	S12 SL7	(2+1/8)r+R
104	1	1	0	1	0	0	0	S13	2r+R
105	1	1	0	1	0	0	1	S13 SL1	(1+7/8)r+R
106	1	1	0	1	0	1	0	S13 SL2	(1+6/8)r+R
107	1	1	0	1	0	1	1	S13 SL3	(1+5/8)r+R
108	1	1	0	1	1	0	0	S13 SL4	(1+4/8)r+R
109	1	1	0	1	1	0	1	S13 SL5	(1+3/8)r+R
110	1	1	0	1	1	1	0	S13 SL6	(1+2/8)r+R
111	1	1	0	1	1	1	1	S13 SL7	(1+1/8)r+R
112	1	1	1	0	0	0	0	S14	r+R
113	1	1	1	0	0	0	1	S14 SL1	(7/8)r+R
114	1	1	1	0	0	1	0	S14 SL2	(6/8)r+R
115	1	1	1	0	0	1	1	S14 SL3	(5/8)r+R
116	1	1	1	0	1	0	0	S14 SL4	(4/8)r+R
117	1	1	1	0	1	0	1	S14 SL5	(3/8)r+R
118	1	1	1	0	1	1	0	S14 SL6	(2/8)r+R
119	1	1	1	0	1	1	1	S14 SL7	(1/8)r+R
120	1	1	1	1	0	0	0	S15	R
121	1	1	1	1	0	0	1	S15 SMT	R//R0
122	1	1	1	1	0	1	0	S15 SMT	R//R0
123	1	1	1	1	0	1	1	S15 SMT	R//R0
124	1	1	1	1	1	0	0	S15 SMT	R//R0
125	1	1	1	1	1	0	1	S15 SMT	R//R0
126	1	1	1	1	1	1	0	S15 SMT	R//R0
127	1	1	1	1	1	1	1	S15 SMT	R//R0

FIG. 8C



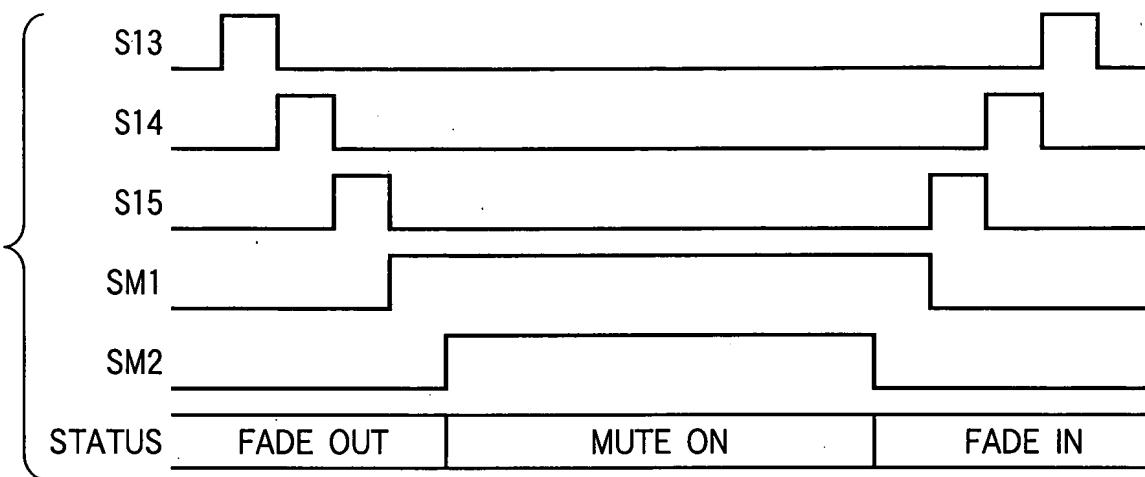


FIG. 10

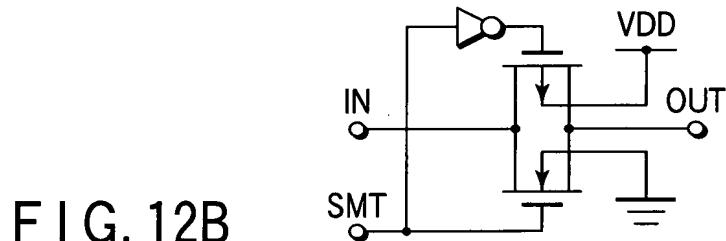


FIG. 12B

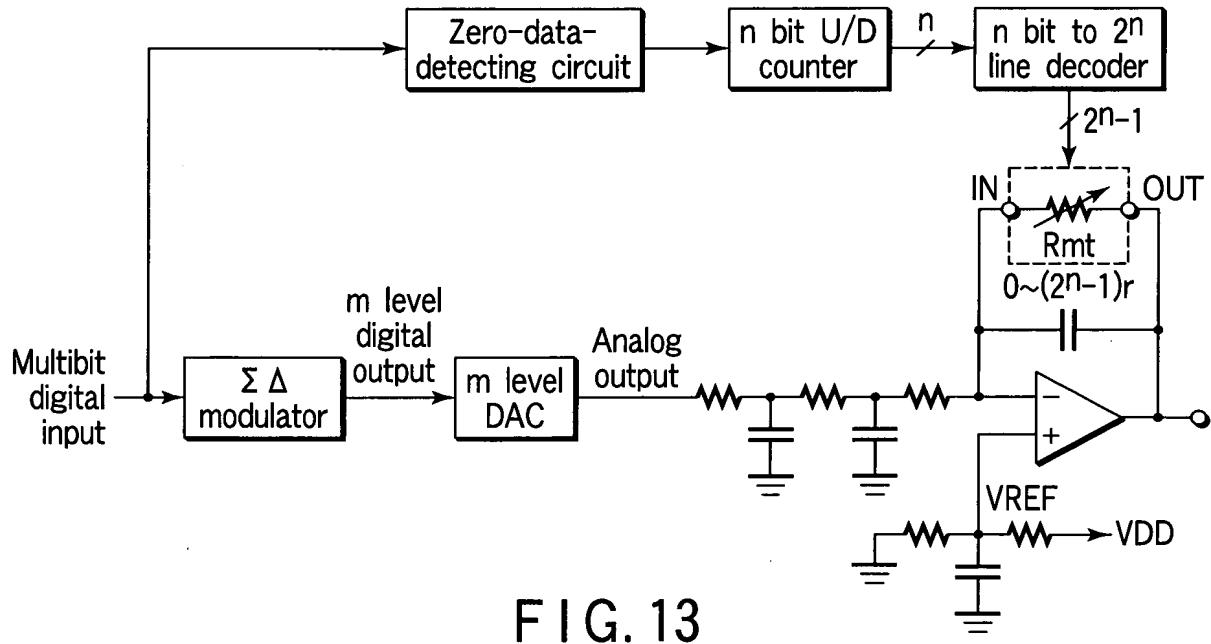


FIG. 13

Counter	D	C	B	A	L2	L1	L0	ON-SW	Resistance value
0	0	0	0	0	0	0	0		15r+R
1	0	0	0	0	0	0	1	SL1	(14+7/8)r+R
2	0	0	0	0	0	1	0	SL2	(14+6/8)r+R
3	0	0	0	0	0	1	1	SL3	(14+5/8)r+R
4	0	0	0	0	1	0	0	SL4	(14+4/8)r+R
5	0	0	0	0	1	0	1	SL5	(14+3/8)r+R
6	0	0	0	0	1	1	0	SL6	(14+2/8)r+R
7	0	0	0	0	1	1	1	SL7	(14+1/8)r+R
8	0	0	0	1	0	0	0	S1	14r+R
9	0	0	0	1	0	0	1	S1	SL1 (13+7/8)r+R
10	0	0	0	1	0	1	0	S1	SL2 (13+6/8)r+R
11	0	0	0	1	0	1	1	S1	SL3 (13+5/8)r+R
12	0	0	0	1	1	0	0	S1	SL4 (13+4/8)r+R
13	0	0	0	1	1	0	1	S1	SL5 (13+3/8)r+R
14	0	0	0	1	1	1	0	S1	SL6 (13+2/8)r+R
15	0	0	0	1	1	1	1	S1	SL7 (13+1/8)r+R
16	0	0	1	0	0	0	0	S2	13r+R
17	0	0	1	0	0	0	1	S2	SL1 (12+7/8)r+R
18	0	0	1	0	0	1	0	S2	SL2 (12+6/8)r+R
19	0	0	1	0	0	1	1	S2	SL3 (12+5/8)r+R
20	0	0	1	0	1	0	0	S2	SL4 (12+4/8)r+R
21	0	0	1	0	1	0	1	S2	SL5 (12+3/8)r+R
22	0	0	1	0	1	1	0	S2	SL6 (12+2/8)r+R
23	0	0	1	0	1	1	1	S2	SL7 (12+1/8)r+R
24	0	0	1	1	0	0	0	S3	12r+R
25	0	0	1	1	0	0	1	S3	SL1 (11+7/8)r+R
26	0	0	1	1	0	1	0	S3	SL2 (11+6/8)r+R
27	0	0	1	1	0	1	1	S3	SL3 (11+5/8)r+R
28	0	0	1	1	1	0	0	S3	SL4 (11+4/8)r+R
29	0	0	1	1	1	0	1	S3	SL5 (11+3/8)r+R
30	0	0	1	1	1	1	0	S3	SL6 (11+2/8)r+R
31	0	0	1	1	1	1	1	S3	SL7 (11+1/8)r+R
32	0	1	0	0	0	0	0	S4	11r+R
33	0	1	0	0	0	0	1	S4	SL1 (10+7/8)r+R
34	0	1	0	0	0	1	0	S4	SL2 (10+6/8)r+R
35	0	1	0	0	0	1	1	S4	SL3 (10+5/8)r+R
36	0	1	0	0	1	0	0	S4	SL4 (10+4/8)r+R
37	0	1	0	0	1	0	1	S4	SL5 (10+3/8)r+R
38	0	1	0	0	1	1	0	S4	SL6 (10+2/8)r+R
39	0	1	0	0	1	1	1	S4	SL7 (10+1/8)r+R
40	0	1	0	1	0	0	0	S5	10r+R
41	0	1	0	1	0	0	1	S5	SL1 (9+7/8)r+R
42	0	1	0	1	0	1	0	S5	SL2 (9+6/8)r+R
43	0	1	0	1	0	1	1	S5	SL3 (9+5/8)r+R

FIG.11A

Counter	D	C	B	A	L2	L1	L0	ON-SW	Resistance value
44	0	1	0	1	1	0	0	S5 SL4	(9+4/8)r+R
45	0	1	0	1	1	0	1	S5 SL5	(9+3/8)r+R
46	0	1	0	1	1	1	0	S5 SL6	(9+2/8)r+R
47	0	1	0	1	1	1	1	S5 SL7	(9+1/8)r+R
48	0	1	1	0	0	0	0	S6	9r+R
49	0	1	1	0	0	0	1	S6 SL1	(8+7/8)r+R
50	0	1	1	0	0	1	0	S6 SL2	(8+6/8)r+R
51	0	1	1	0	0	1	1	S6 SL3	(8+5/8)r+R
52	0	1	1	0	1	0	0	S6 SL4	(8+4/8)r+R
53	0	1	1	0	1	0	1	S6 SL5	(8+3/8)r+R
54	0	1	1	0	1	1	0	S6 SL6	(8+2/8)r+R
55	0	1	1	0	1	1	1	S6 SL7	(8+1/8)r+R
56	0	1	1	1	0	0	0	S7	8r+R
57	0	1	1	1	0	0	1	S7 SL1	(7+7/8)r+R
58	0	1	1	1	0	1	0	S7 SL2	(7+6/8)r+R
59	0	1	1	1	0	1	1	S7 SL3	(7+5/8)r+R
60	0	1	1	1	1	0	0	S7 SL4	(7+4/8)r+R
61	0	1	1	1	1	0	1	S7 SL5	(7+3/8)r+R
62	0	1	1	1	1	1	0	S7 SL6	(7+2/8)r+R
63	0	1	1	1	1	1	1	S7 SL7	(7+1/8)r+R
64	1	0	0	0	0	0	0	S8	7r+R
65	1	0	0	0	0	0	1	S8 SL1	(6+7/8)r+R
66	1	0	0	0	0	1	0	S8 SL2	(6+6/8)r+R
67	1	0	0	0	0	1	1	S8 SL3	(6+5/8)r+R
68	1	0	0	0	1	0	0	S8 SL4	(6+4/8)r+R
69	1	0	0	0	1	0	1	S8 SL5	(6+3/8)r+R
70	1	0	0	0	1	1	0	S8 SL6	(6+2/8)r+R
71	1	0	0	0	1	1	1	S8 SL7	(6+1/8)r+R
72	1	0	0	1	0	0	0	S9	6r+R
73	1	0	0	1	0	0	1	S9 SL1	(5+7/8)r+R
74	1	0	0	1	0	1	0	S9 SL2	(5+6/8)r+R
75	1	0	0	1	0	1	1	S9 SL3	(5+5/8)r+R
76	1	0	0	1	1	0	0	S9 SL4	(5+4/8)r+R
77	1	0	0	1	1	0	1	S9 SL5	(5+3/8)r+R
78	1	0	0	1	1	1	0	S9 SL6	(5+2/8)r+R
79	1	0	0	1	1	1	1	S9 SL7	(5+1/8)r+R
80	1	0	1	0	0	0	0	S10	5r+R
81	1	0	1	0	0	0	1	S10 SL1	(4+7/8)r+R
82	1	0	1	0	0	1	0	S10 SL2	(4+6/8)r+R
83	1	0	1	0	0	1	1	S10 SL3	(4+5/8)r+R
84	1	0	1	0	1	0	0	S10 SL4	(4+4/8)r+R
85	1	0	1	0	1	0	1	S10 SL5	(4+3/8)r+R
86	1	0	1	0	1	1	0	S10 SL6	(4+2/8)r+R

FIG. 11B

Counter	D	C	B	A	L2	L1	L0	ON-SW	Resistance value
87	1	0	1	0	1	1	1	S10	$(4+1/8)r+R$
88	1	0	1	1	0	0	0	S11	$4r+R$
89	1	0	1	1	0	0	1	S11	$(3+7/8)r+R$
90	1	0	1	1	0	1	0	S11	$(3+6/8)r+R$
91	1	0	1	1	0	1	1	S11	$(3+5/8)r+R$
92	1	0	1	1	1	0	0	S11	$(3+4/8)r+R$
93	1	0	1	1	1	0	1	S11	$(3+3/8)r+R$
94	1	0	1	1	1	1	0	S11	$(3+2/8)r+R$
95	1	0	1	1	1	1	1	S11	$(3+1/8)r+R$
96	1	1	0	0	0	0	0	S12	$3r+R$
97	1	1	0	0	0	0	1	S12	$(2+7/8)r+R$
98	1	1	0	0	0	1	0	S12	$(2+6/8)r+R$
99	1	1	0	0	0	1	1	S12	$(2+5/8)r+R$
100	1	1	0	0	1	0	0	S12	$(2+4/8)r+R$
101	1	1	0	0	1	0	1	S12	$(2+3/8)r+R$
102	1	1	0	0	1	1	0	S12	$(2+2/8)r+R$
103	1	1	0	0	1	1	1	S12	$(2+1/8)r+R$
104	1	1	0	1	0	0	0	S13	$2r+R$
105	1	1	0	1	0	0	1	S13	$(1+7/8)r+R$
106	1	1	0	1	0	1	0	S13	$(1+6/8)r+R$
107	1	1	0	1	0	1	1	S13	$(1+5/8)r+R$
108	1	1	0	1	1	0	0	S13	$(1+4/8)r+R$
109	1	1	0	1	1	0	1	S13	$(1+3/8)r+R$
110	1	1	0	1	1	1	0	S13	$(1+2/8)r+R$
111	1	1	0	1	1	1	1	S13	$(1+1/8)r+R$
112	1	1	1	0	0	0	0	S14	$r+R$
113	1	1	1	0	0	0	1	S14	$(7/8)r+R$
114	1	1	1	0	0	1	0	S14	$(6/8)r+R$
115	1	1	1	0	0	1	1	S14	$(5/8)r+R$
116	1	1	1	0	1	0	0	S14	$(4/8)r+R$
117	1	1	1	0	1	0	1	S14	$(3/8)r+R$
118	1	1	1	0	1	1	0	S14	$(2/8)r+R$
119	1	1	1	0	1	1	1	S14	$(1/8)r+R$
120	1	1	1	1	0	0	0	S15	R
121	1	1	1	1	0	0	1	SM1	R01
122	1	1	1	1	0	1	0	SM1	SM2 R01//R02
123	1	1	1	1	0	1	1	SM1	SM2 R01//R02
124	1	1	1	1	1	0	0	SM1	SM2 R01//R02
125	1	1	1	1	1	0	1	SM1	SM2 R01//R02
126	1	1	1	1	1	1	0	SM1	SM2 R01//R02
127	1	1	1	1	1	1	1	SM1	SM2 R01//R02

FIG. 11C

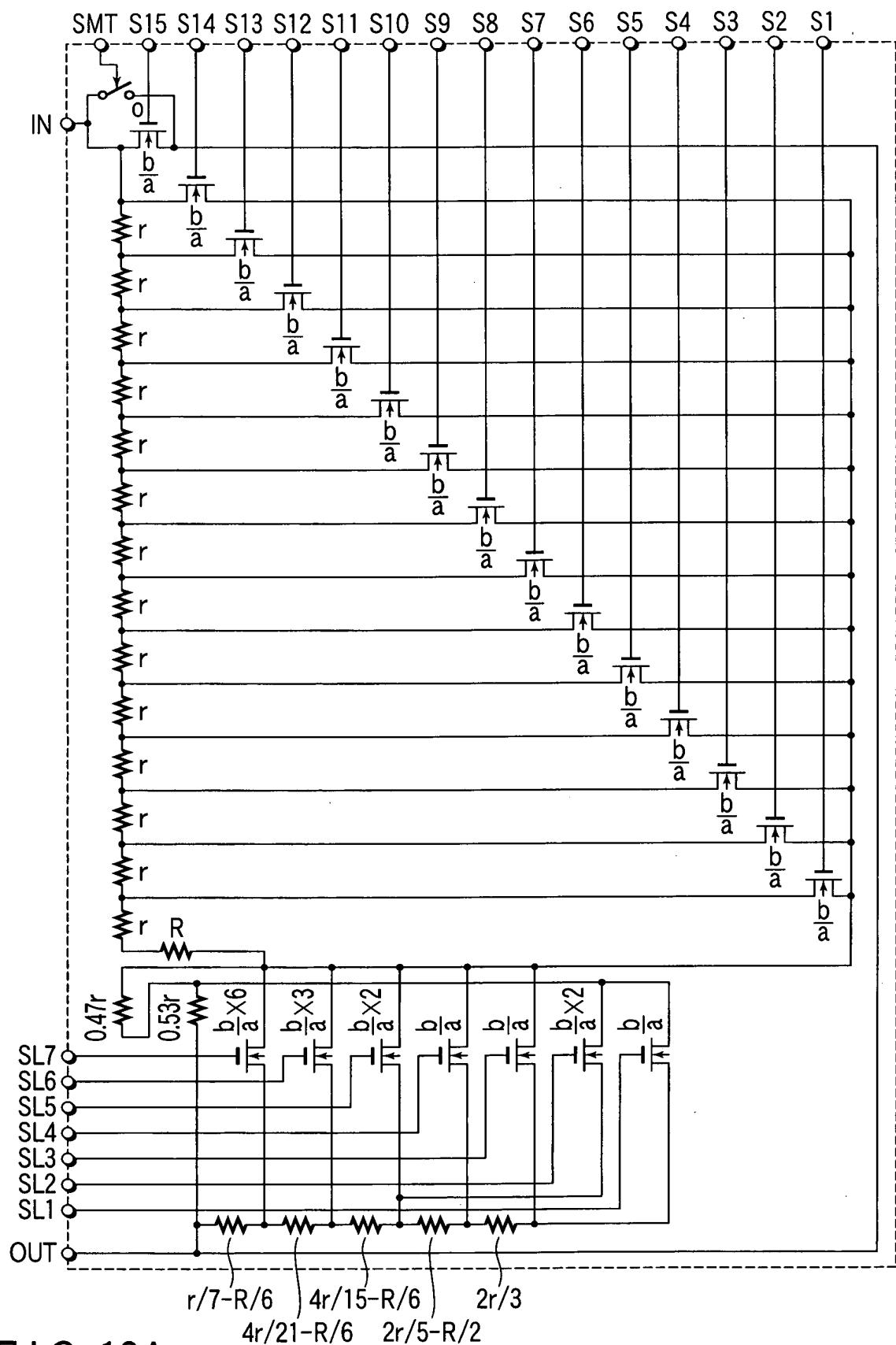


FIG. 12A

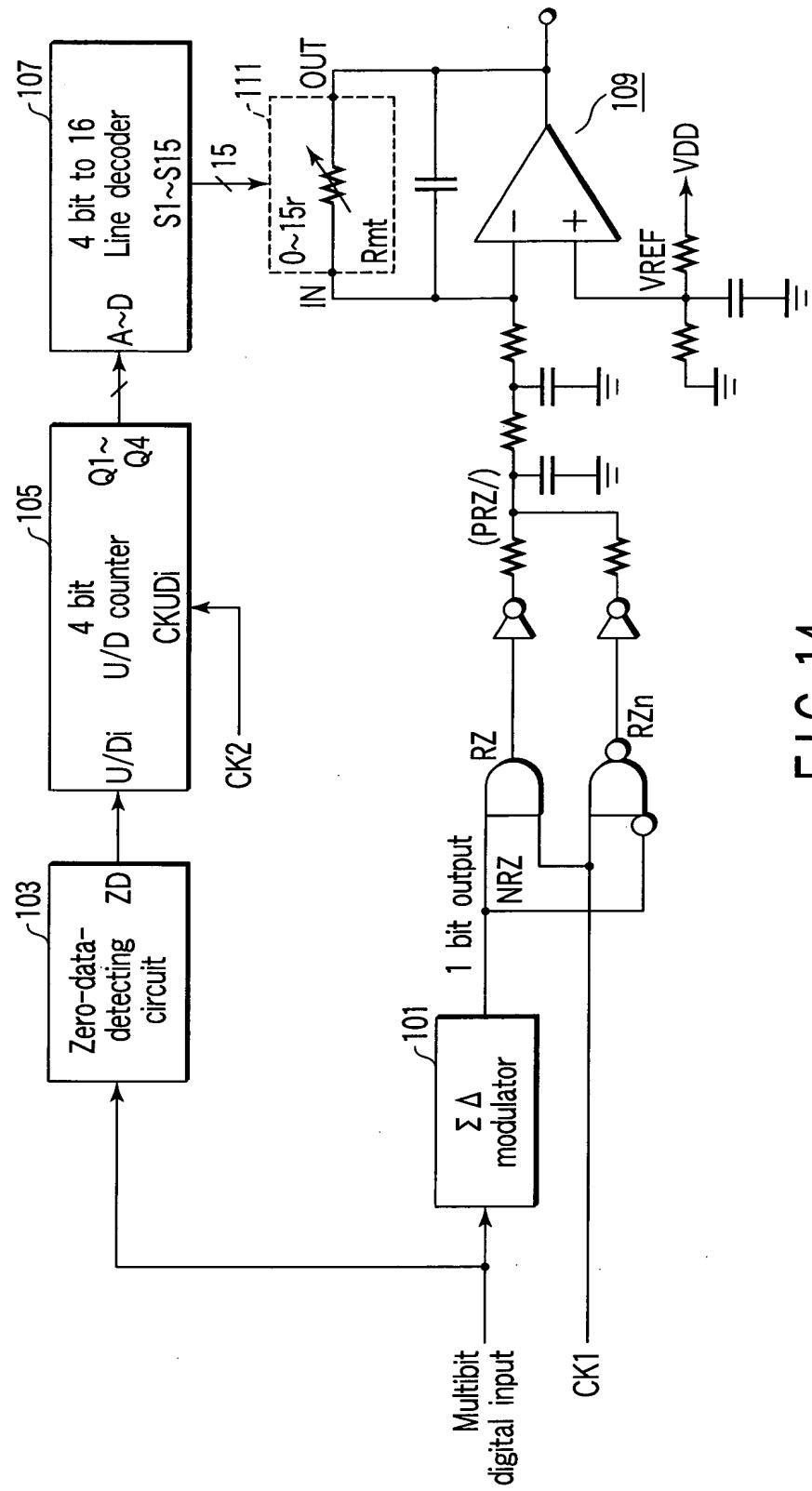


FIG. 14

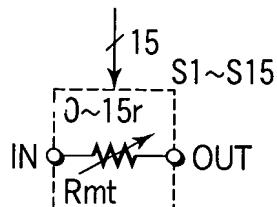


FIG. 15A

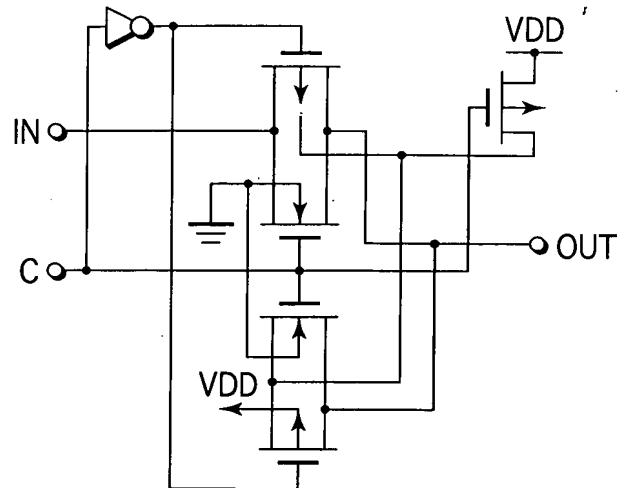


FIG. 15C

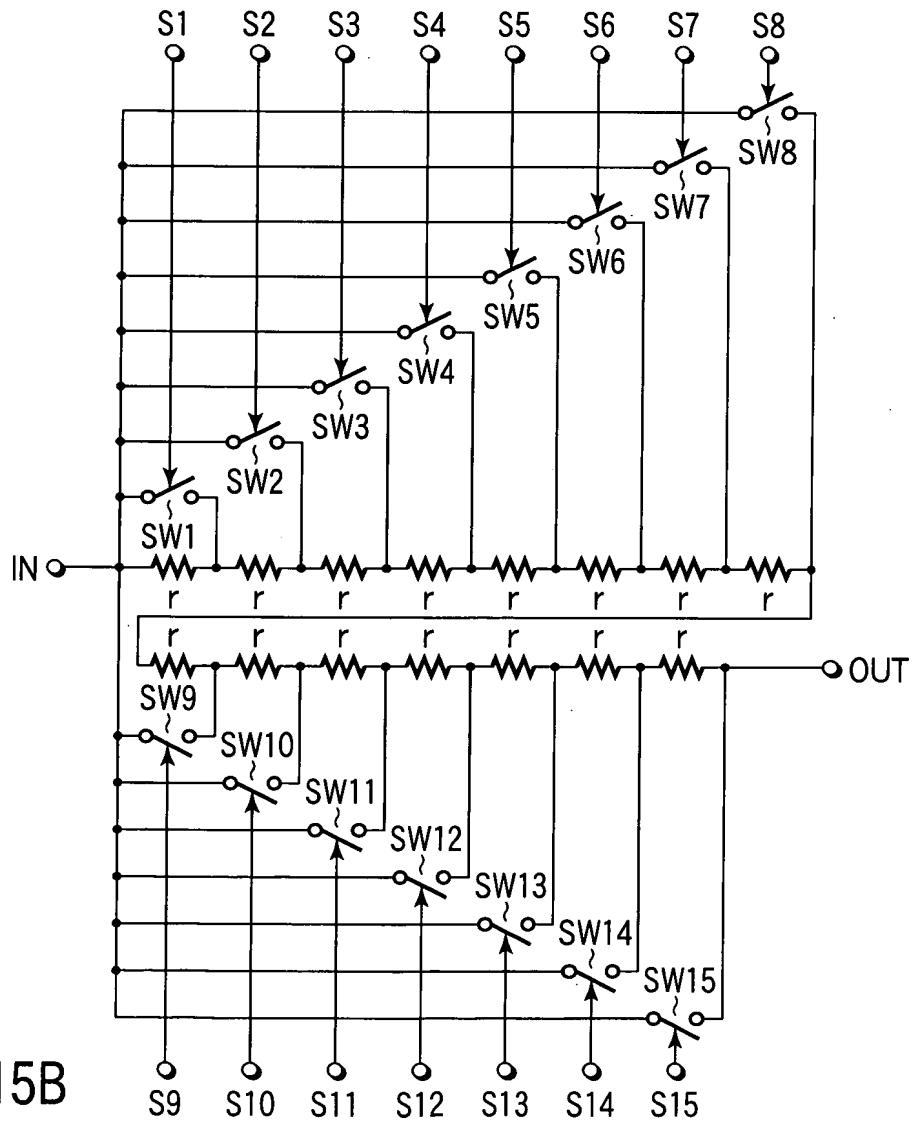


FIG. 15B

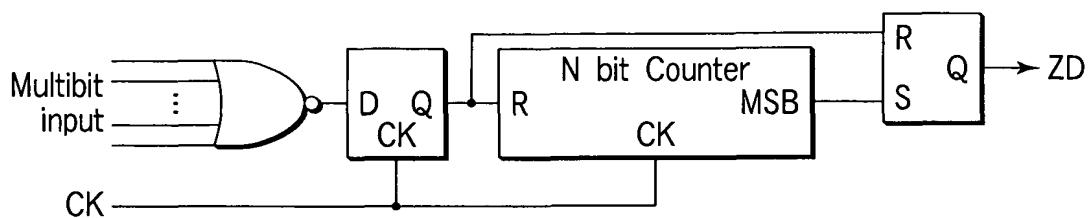


FIG. 16

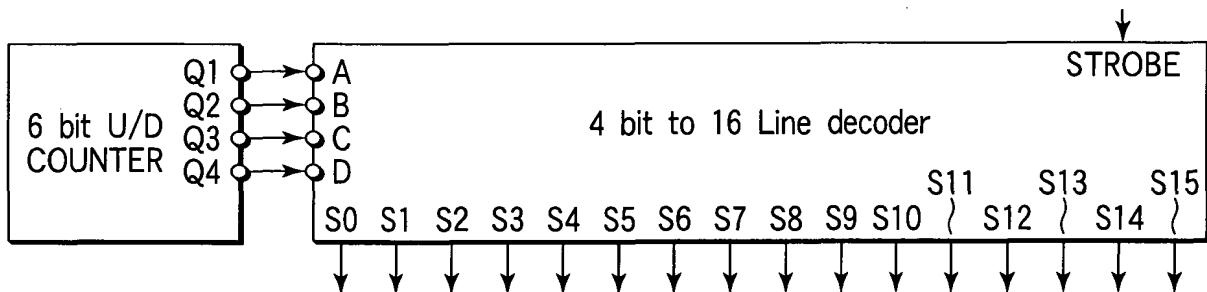


FIG. 17A

INPUT				SELECT LINE (H)	ATT
A	B	C	D		
0	0	0	0		15/15
1	0	0	0	S1	14/15
0	1	0	0	S2	13/15
1	1	0	0	S3	12/15
0	0	1	0	S4	11/15
1	0	1	0	S5	10/15
0	1	1	0	S6	9/15
1	1	1	0	S7	8/15
0	0	0	1	S8	7/15
1	0	0	1	S9	6/15
0	1	0	1	S10	5/15
1	1	0	1	S11	4/15
0	0	1	1	S12	3/15
1	0	1	1	S13	2/15
0	1	1	1	S14	1/15
1	1	1	1	S15	0/15

FIG. 18

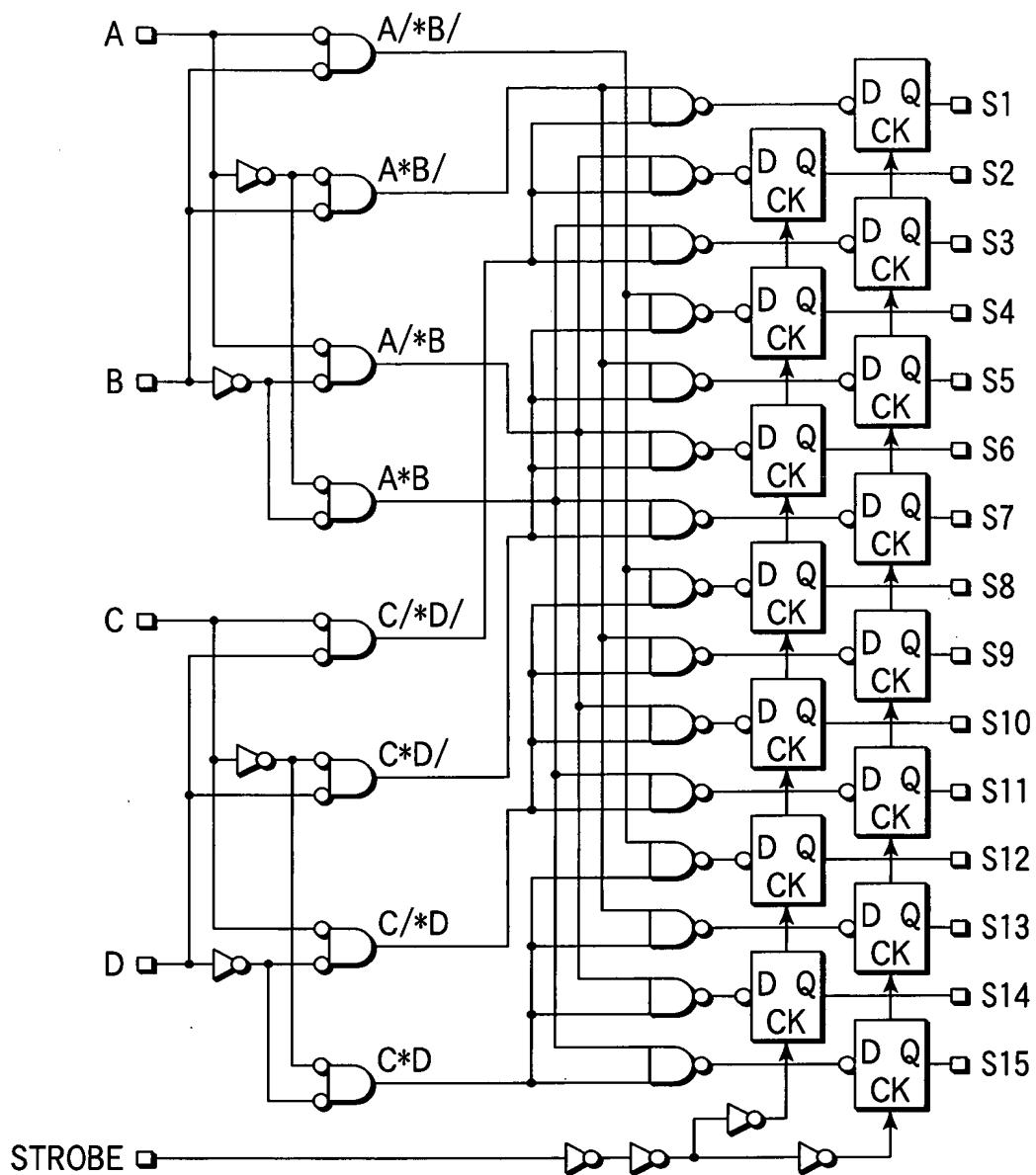


FIG. 17B

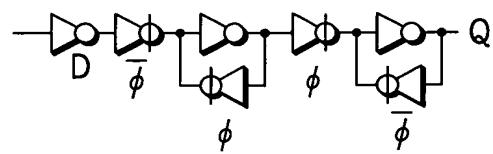


FIG. 17C

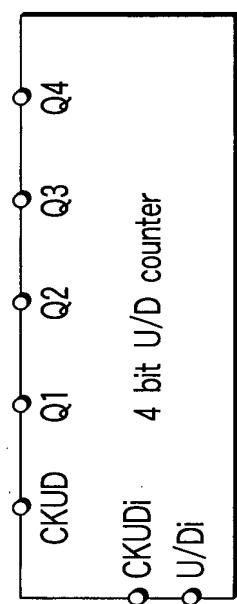


FIG. 19A

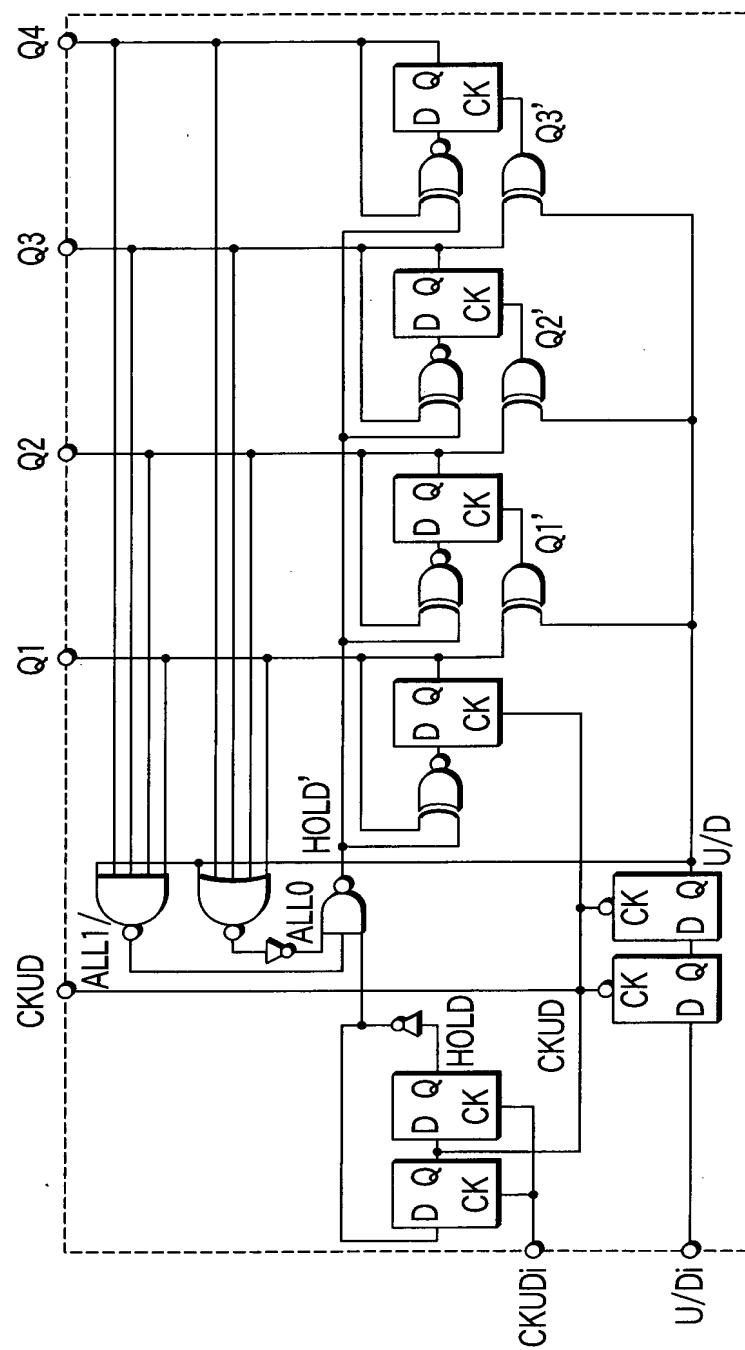


FIG. 19B

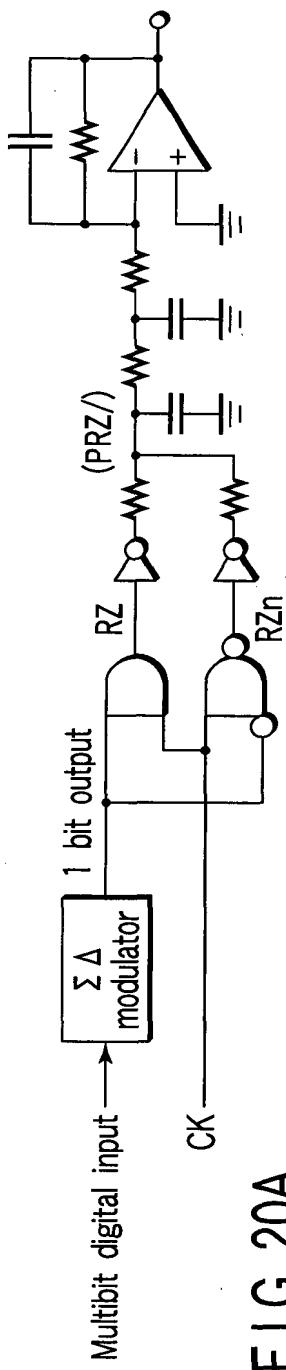


FIG. 20A

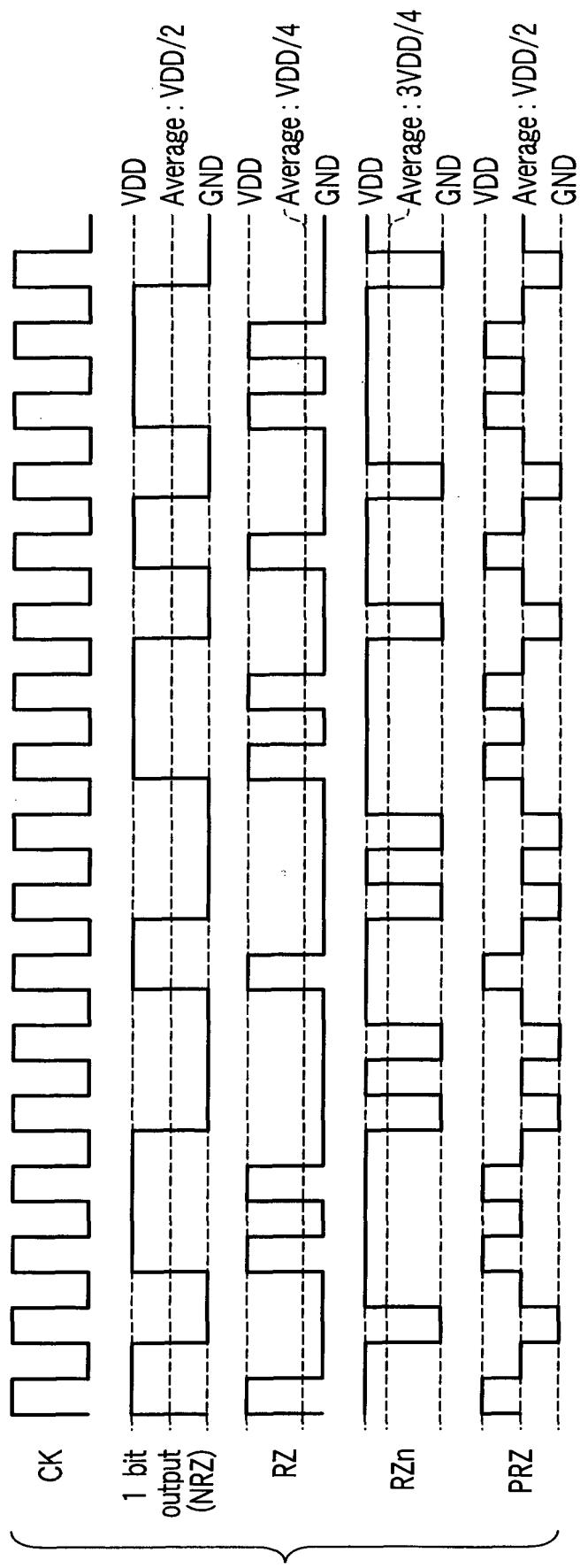


FIG. 20B

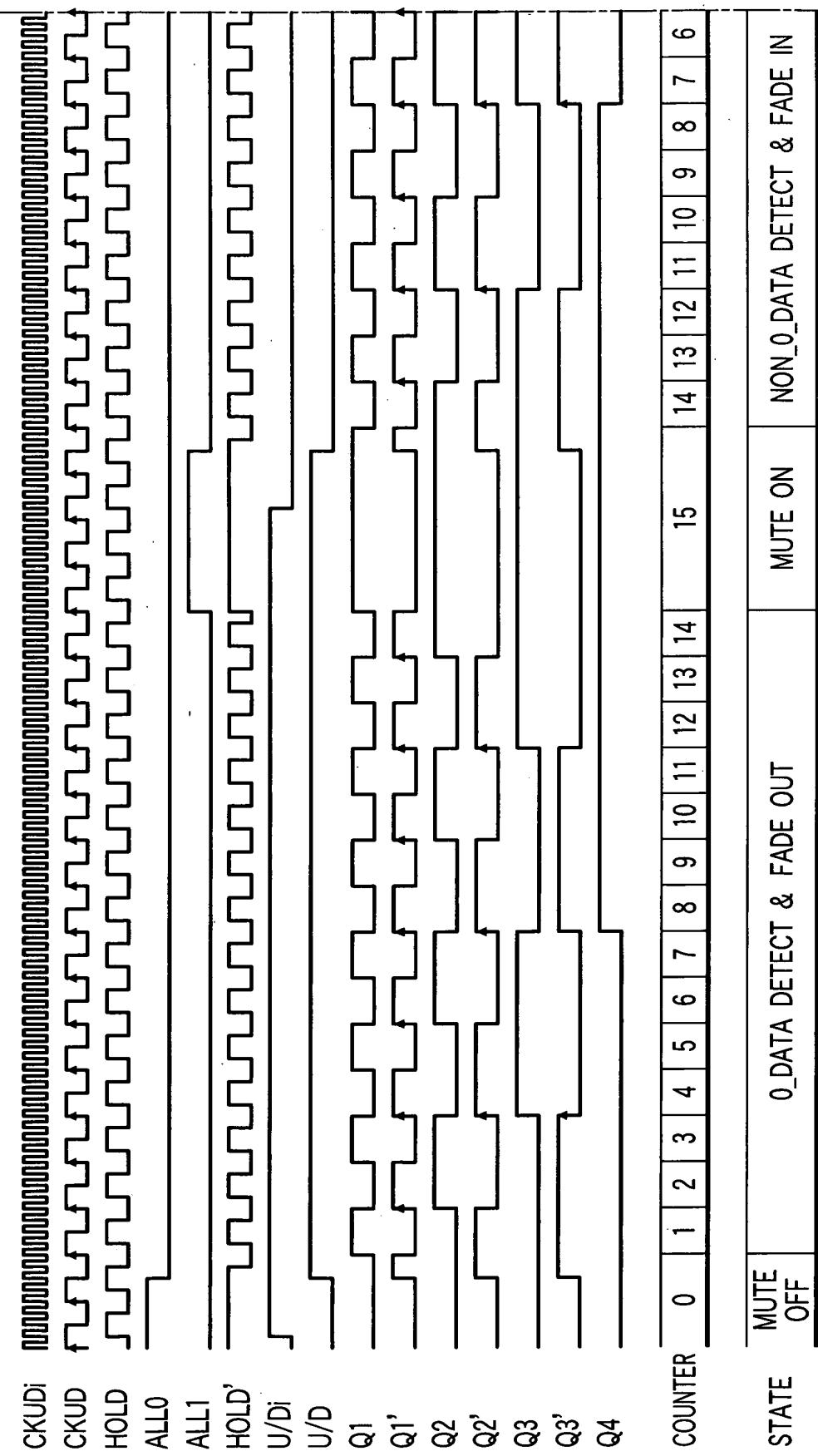


FIG. 21A

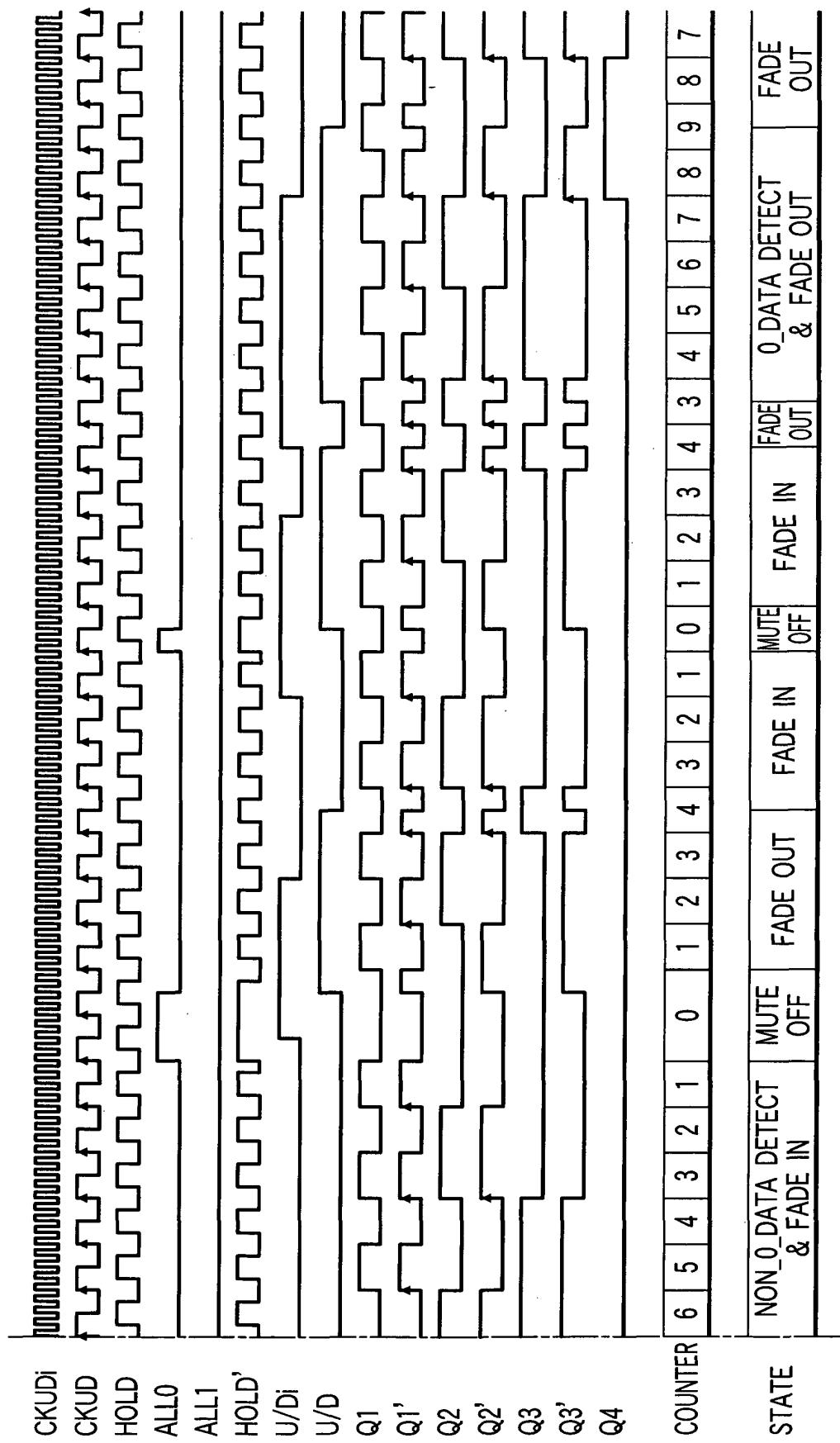


FIG. 21B

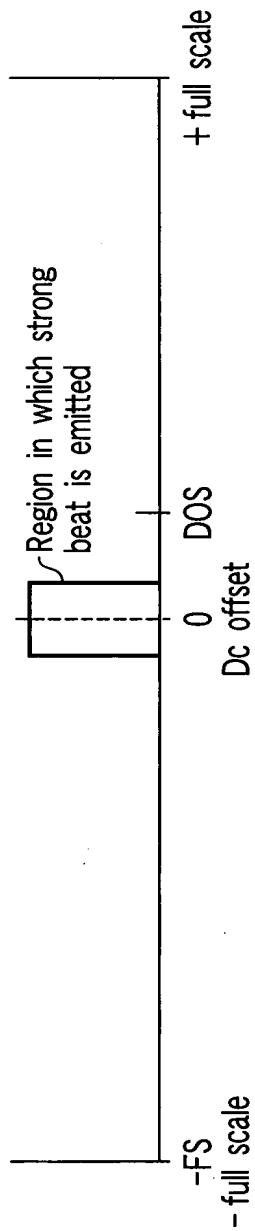


FIG. 22

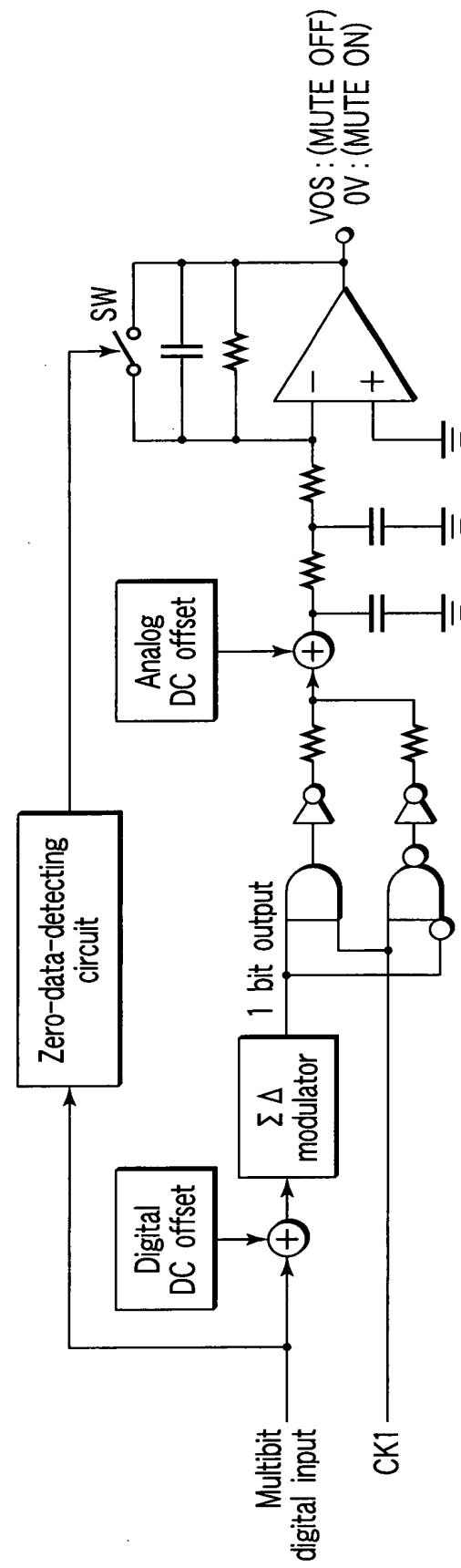


FIG. 23

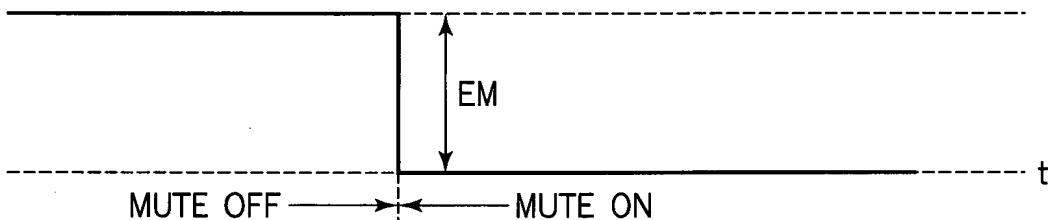
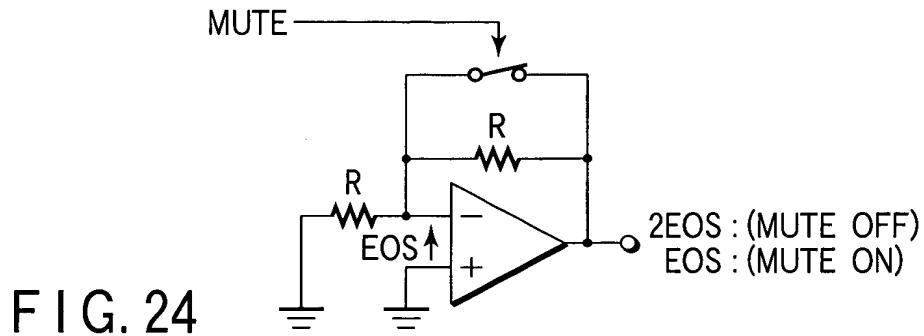


FIG. 25

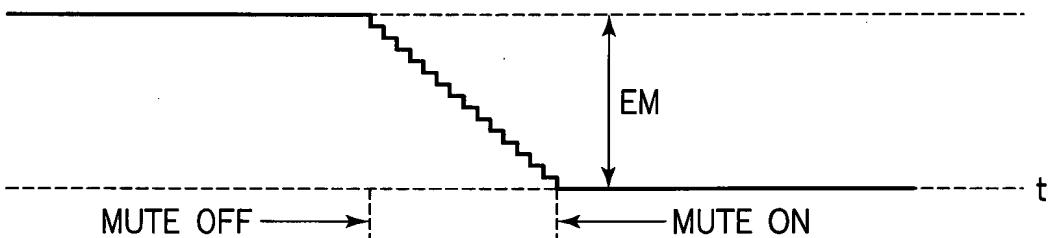


FIG. 26

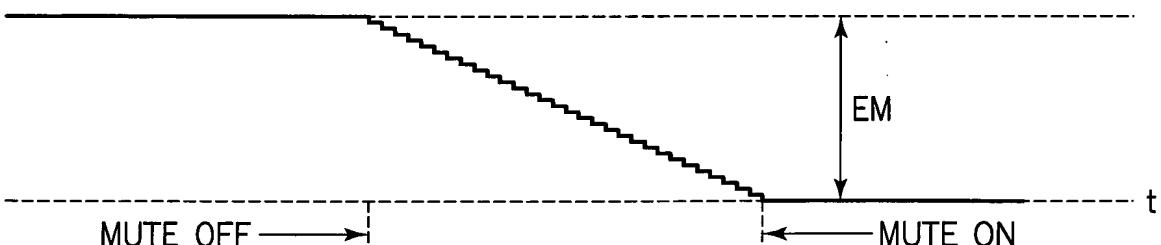


FIG. 27

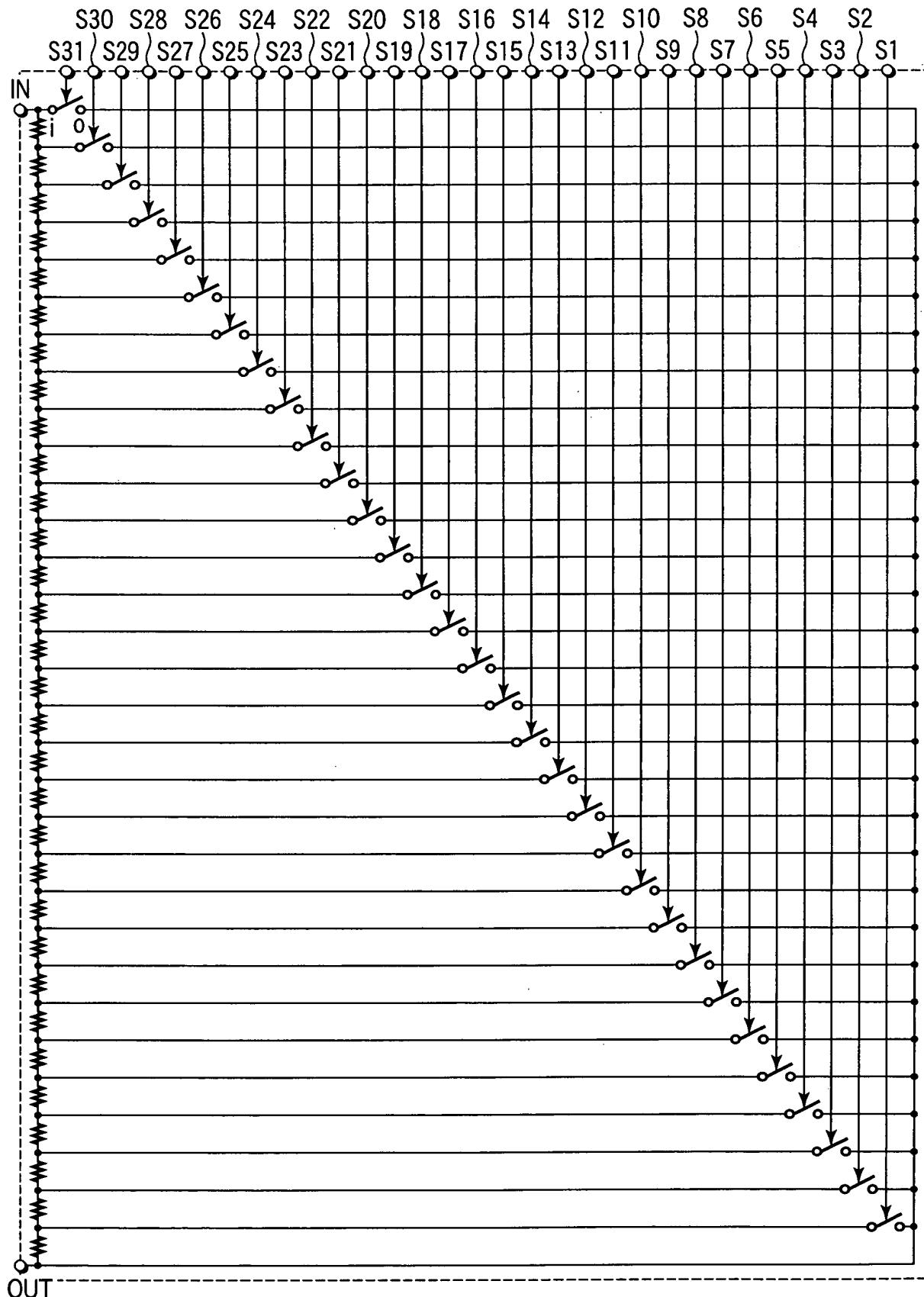


FIG. 28A

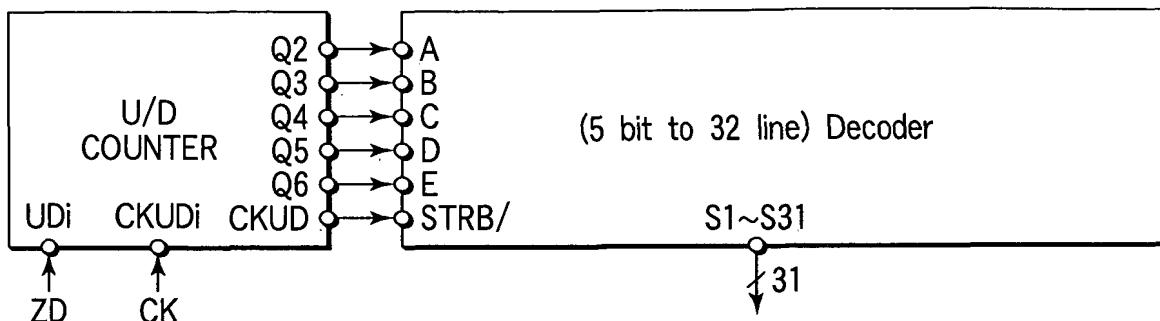


FIG. 29A

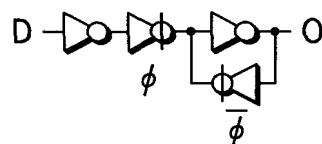


FIG. 29C

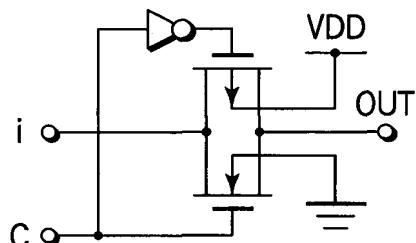


FIG. 28B

INPUT					SELECT LINE (H)	STATE
A	B	C	D	E		
0	0	0	0	0		MUTE OFF
1	0	0	0	0	S1	
0	1	0	0	0	S2	
1	1	0	0	0	S3	
0	0	1	0	0	S4	
1	0	1	0	0	S5	
0	1	1	0	0	S6	
1	1	1	0	0	S7	
0	0	0	1	0	S8	
1	0	0	1	0	S9	
0	1	0	1	0	S10	
1	1	0	1	0	S11	
0	0	1	1	0	S12	
1	0	1	1	0	S13	
0	1	1	1	0	S14	
1	1	1	1	0	S15	
0	0	0	0	1	S16	
1	0	0	0	1	S17	
0	1	0	0	1	S18	
1	1	0	0	1	S19	
0	0	1	0	1	S20	
1	0	1	0	1	S21	
0	1	1	0	1	S22	
1	1	1	0	1	S23	
0	0	0	1	1	S24	
1	0	0	1	1	S25	
0	1	0	1	1	S26	
1	1	0	1	1	S27	
0	0	1	1	1	S28	
1	0	1	1	1	S29	
0	1	1	1	1	S30	
1	1	1	1	1	S31	MUTE ON

FIG. 29D

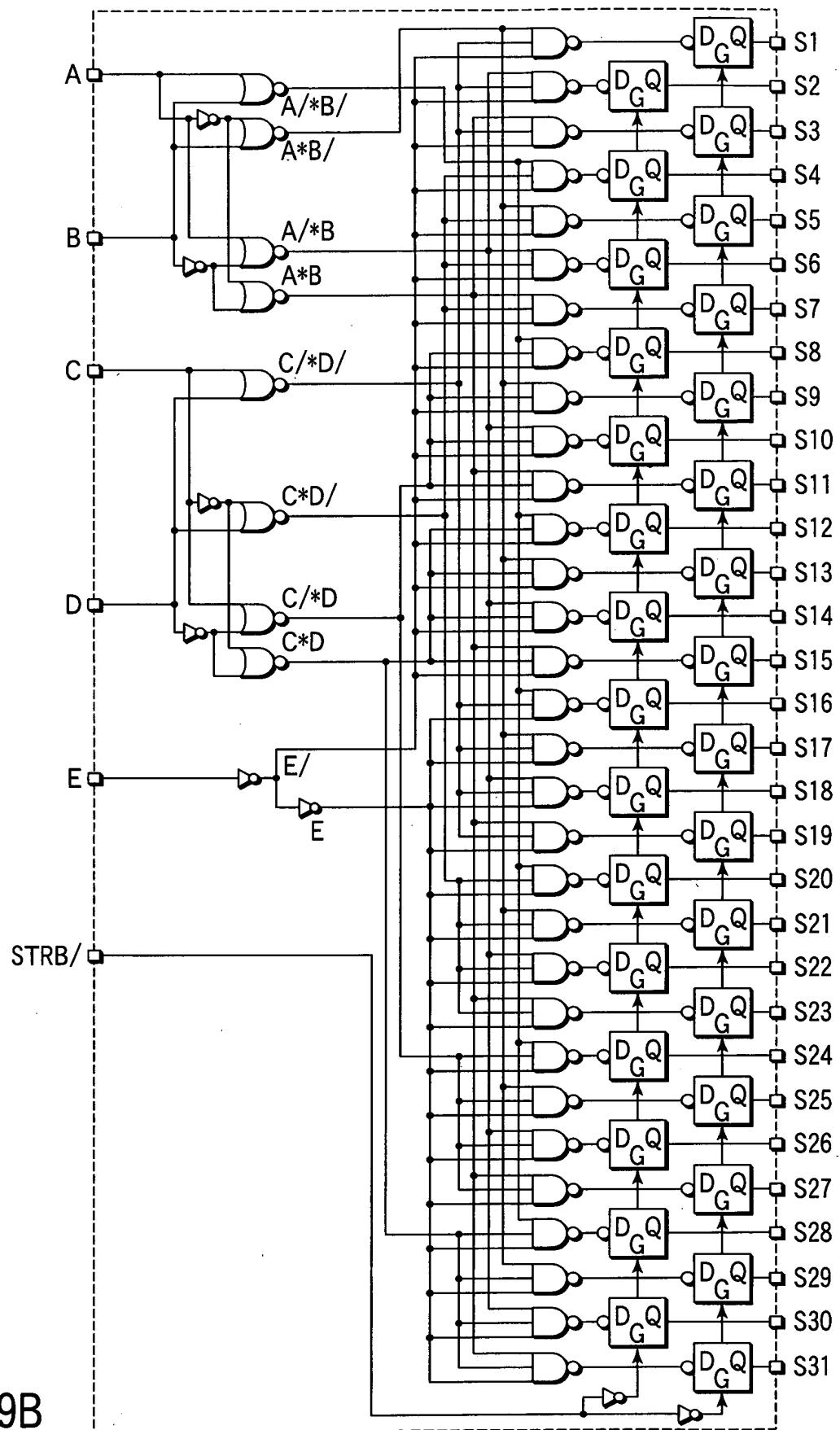
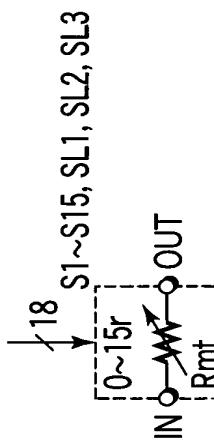
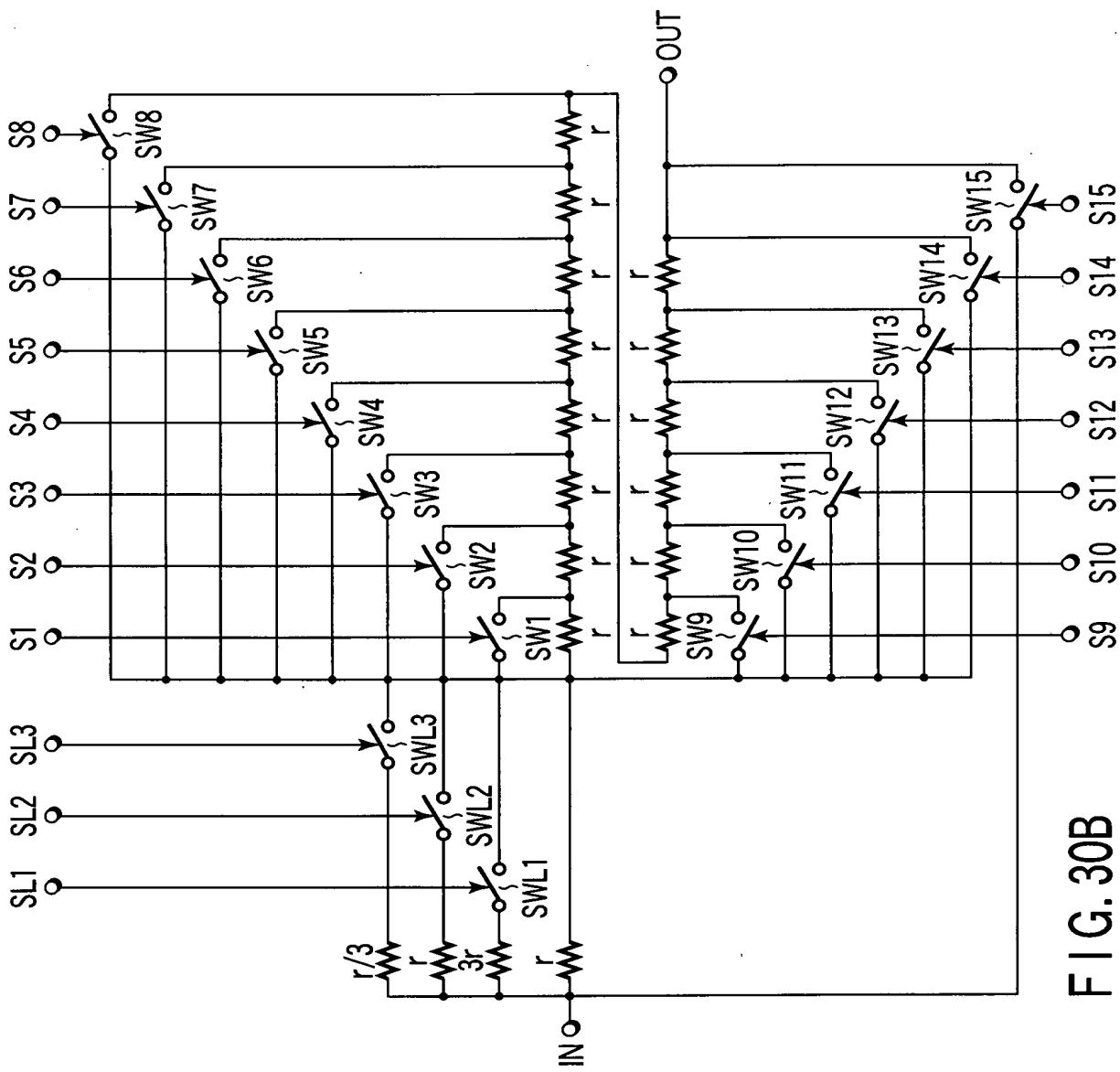


FIG. 29B



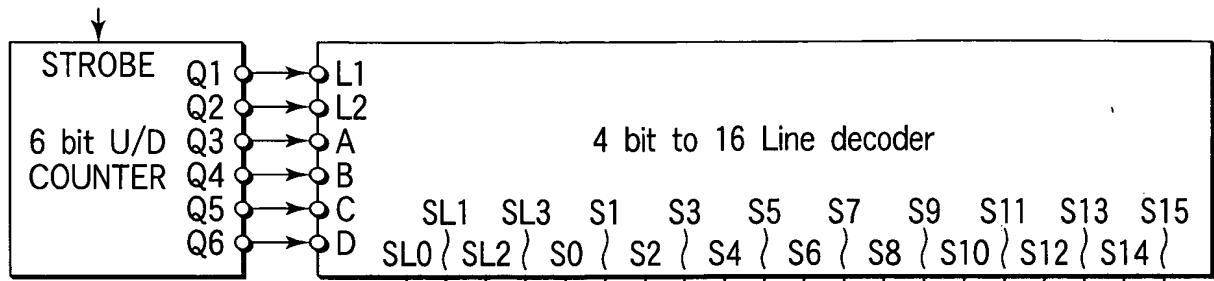


FIG. 31A

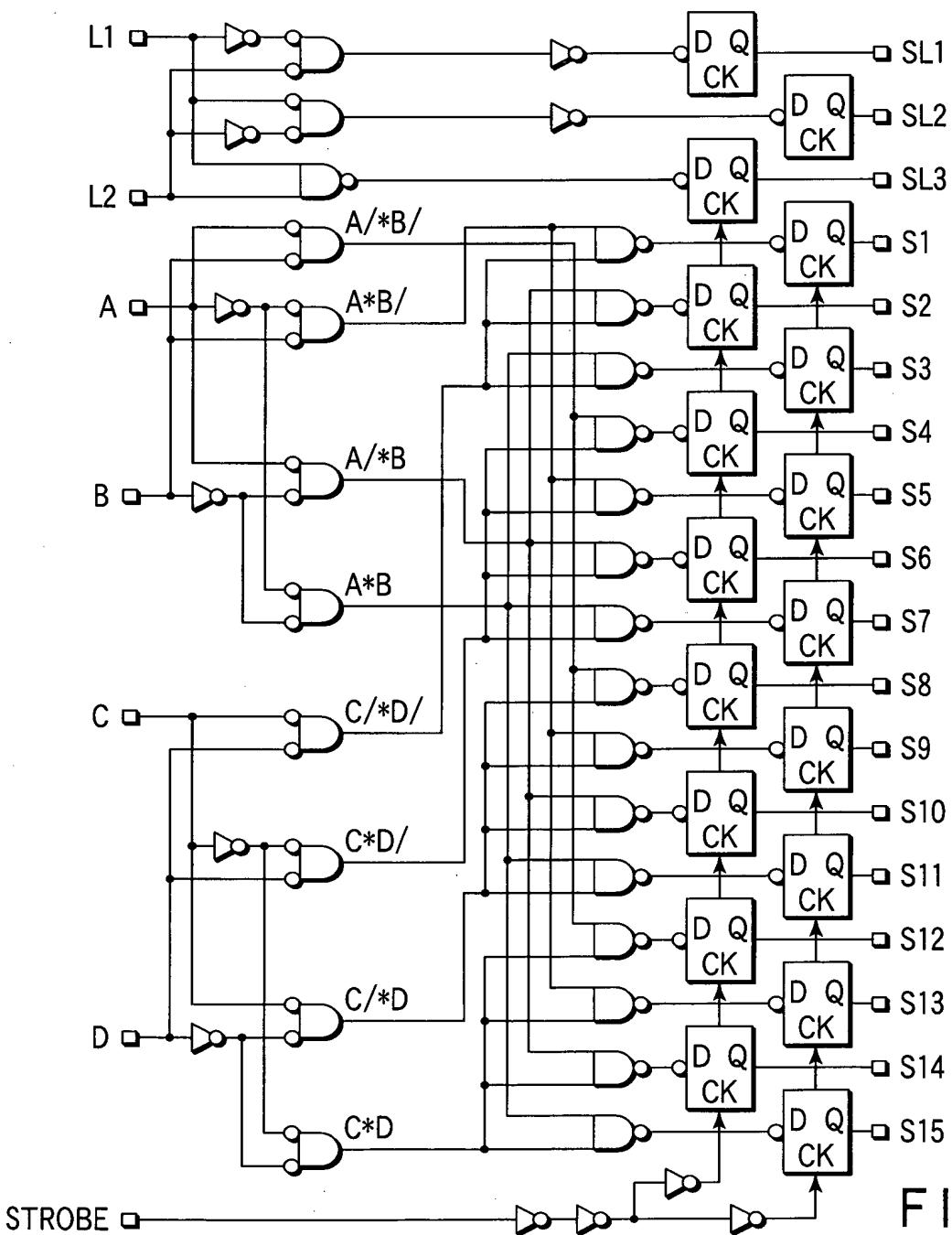


FIG. 31B

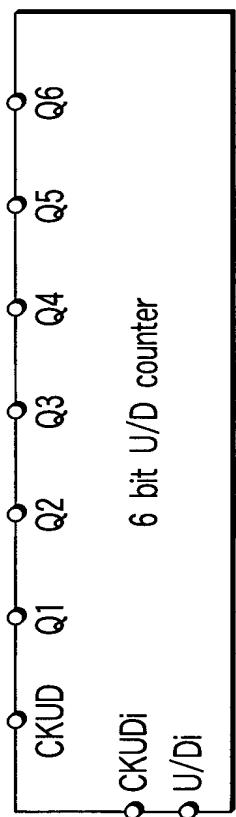


FIG. 32A

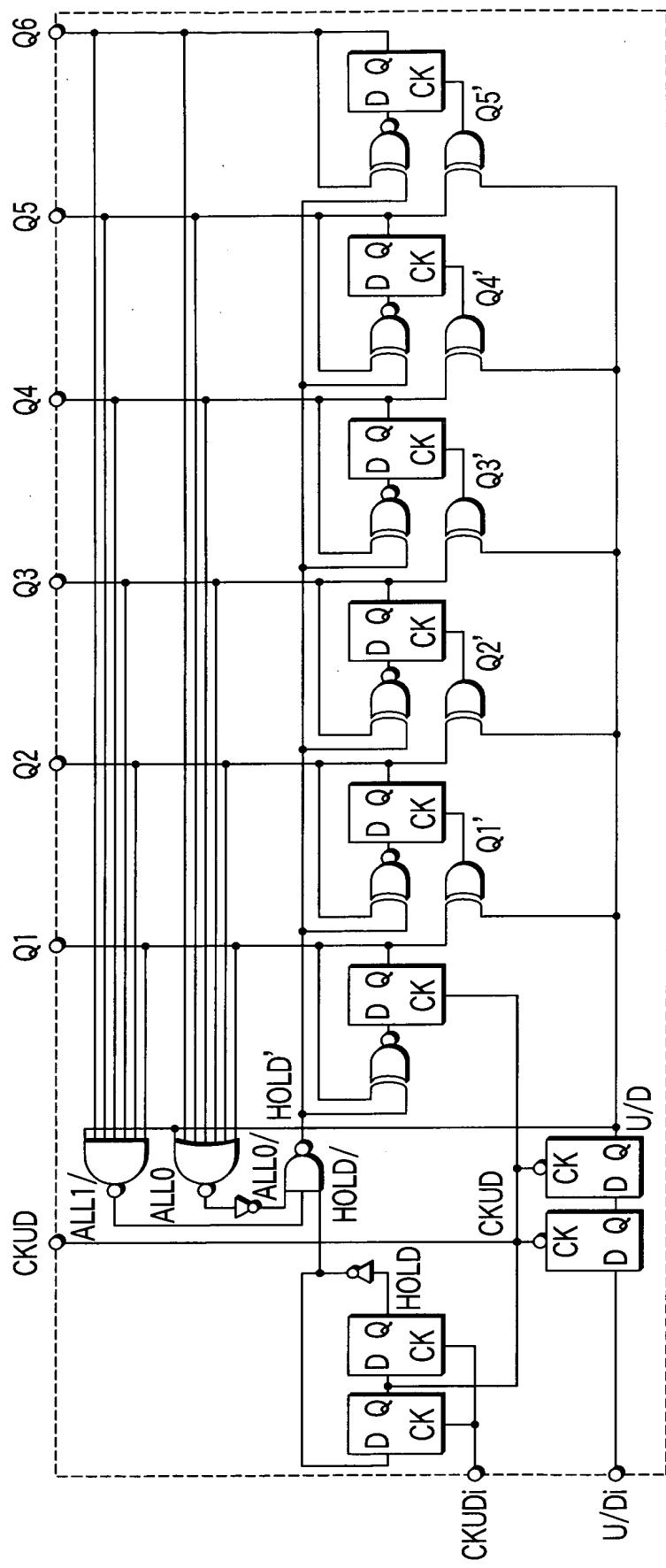


FIG. 32B

INPUT						SELECT LINE (H)	SL1	SL2	SL3	ATT
L1	L2	A	B	C	D					
0	0	0	0	0	0		L	L	L	60/60
1	0	0	0	0	0		H	L	L	59/60
0	1	0	0	0	0		L	H	L	58/60
1	1	0	0	0	0		L	L	H	57/60
0	0	1	0	0	0	S1	L	L	L	56/60
1	0	1	0	0	0		H	L	L	55/60
0	1	1	0	0	0		L	H	L	54/60
1	1	1	0	0	0		L	L	H	53/60
0	0	0	1	0	0	S2	L	L	L	52/60
1	0	0	1	0	0		H	L	L	51/60
0	1	0	1	0	0		L	H	L	50/60
1	1	0	1	0	0		L	L	H	49/60
0	0	1	1	0	0	S3	L	L	L	48/60
1	0	1	1	0	0		H	L	L	47/60
0	1	1	1	0	0		L	H	L	46/60
1	1	1	1	0	0		L	L	H	45/60
0	0	0	0	1	0	S4	L	L	L	44/60
1	0	0	0	1	0		H	L	L	43/60
0	1	0	0	1	0		L	H	L	42/60
1	1	0	0	1	0		L	L	H	41/60
0	0	1	0	1	0	S5	L	L	L	40/60
1	0	1	0	1	0		H	L	L	39/60
0	1	1	0	1	0		L	H	L	38/60
1	1	1	0	1	0		L	L	H	37/60
0	0	0	1	1	0	S6	L	L	L	36/60
1	0	0	1	1	0		H	L	L	35/60
0	1	0	1	1	0		L	H	L	34/60
1	1	0	1	1	0		L	L	H	33/60
0	0	1	1	1	0	S7	L	L	L	32/60
1	0	1	1	1	0		H	L	L	31/60
0	1	1	1	1	0		L	H	L	30/60
1	1	1	1	1	0		L	L	H	29/60

FIG. 33A

INPUT						SELECT LINE (H)	SL1	SL2	SL3	ATT
L1	L2	A	B	C	D					
0	0	0	0	0	1	S8	L	L	L	28/60
1	0	0	0	0	1		H	L	L	27/60
0	1	0	0	0	1		L	H	L	26/60
1	1	0	0	0	1		L	L	H	25/60
0	0	1	0	0	1	S9	L	L	L	24/60
1	0	1	0	0	1		H	L	L	23/60
0	1	1	0	0	1		L	H	L	22/60
1	1	1	0	0	1		L	L	H	21/60
0	0	0	1	0	1	S10	L	L	L	20/60
1	0	0	1	0	1		H	L	L	19/60
0	1	0	1	0	1		L	H	L	18/60
1	1	0	1	0	1		L	L	H	17/60
0	0	1	1	0	1	S11	L	L	L	16/60
1	0	1	1	0	1		H	L	L	15/60
0	1	1	1	0	1		L	H	L	14/60
1	1	1	1	0	1		L	L	H	13/60
0	0	0	0	1	1	S12	L	L	L	12/60
1	0	0	0	1	1		H	L	L	11/60
0	1	0	0	1	1		L	H	L	10/60
1	1	0	0	1	1		L	L	H	9/60
0	0	1	0	1	1	S13	L	L	L	8/60
1	0	1	0	1	1		H	L	L	7/60
0	1	1	0	1	1		L	H	L	6/60
1	1	1	0	1	1		L	L	H	5/60
0	0	0	1	1	1	S14	L	L	L	4/60
1	0	0	1	1	1		H	L	L	3/60
0	1	0	1	1	1		L	H	L	2/60
1	1	0	1	1	1		L	L	H	1/60
0	0	1	1	1	1	S15	L	L	L	0/60
1	0	1	1	1	1		H	L	L	
0	1	1	1	1	1		L	H	L	
1	1	1	1	1	1		L	L	H	

FIG. 33B

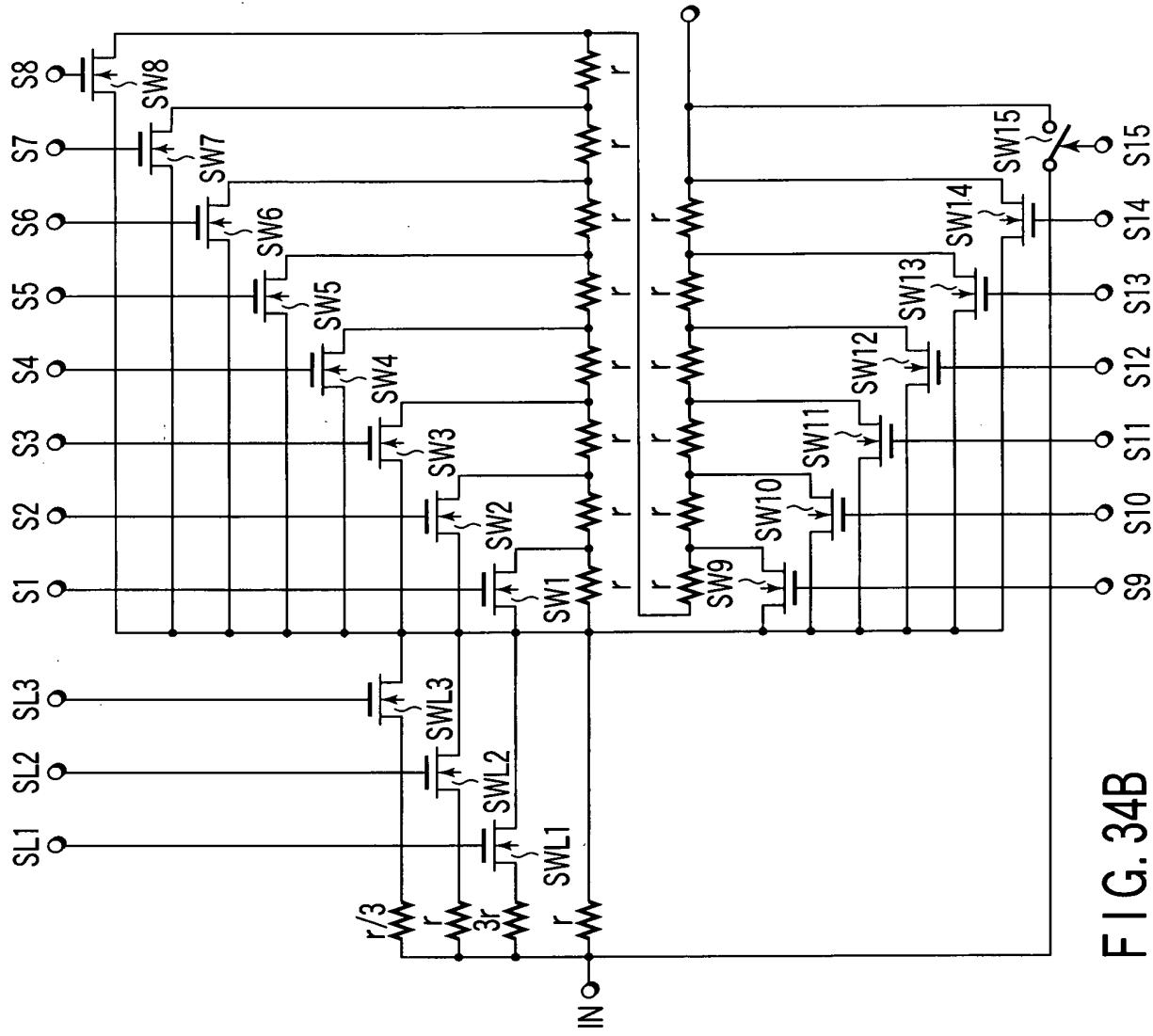


FIG. 34A

FIG. 34B

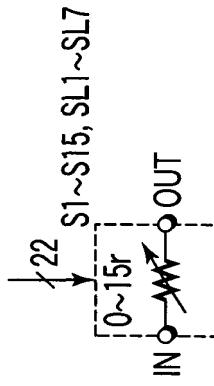
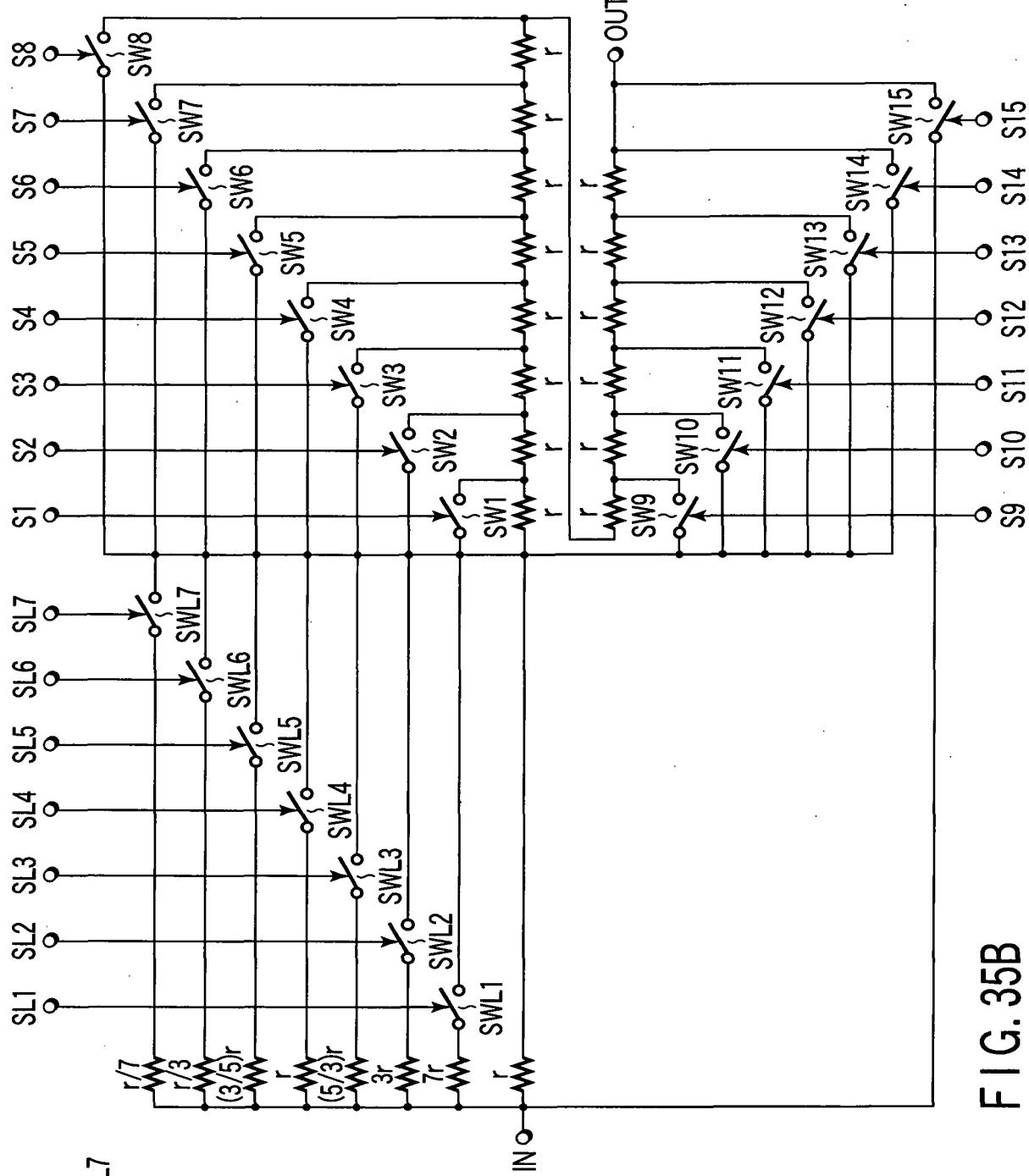


FIG. 35A

FIG. 35B